The 66th Annual Meeting of the Japanese Society of Plant Physiologists

https://jspp.org/annualmeeting/66/

Date: March 14th (Fri) through March 16th (Sun), 2025

Venue: Kanazawa University Kakuma Campus (both online and on-site)

Kakuma-machi, Kanazawa 920-1192

Online participation: https://jspp.org/annualmeeting/66/

Banquet: ANA Crowne Plaza Hotel Kanazawa
(https://www.ihg.com/crowneplaza/hotels/us/en/ishikawa/qkwja/hoteldetail**)**

Organizing Committee

President: Masaki Ito

Vice president: Takumi Nishiuchi

General Affairs: Rumiko Kofuji, Masami Sekine, Shuh-ichi Nishikawa, Hidefumi Shinohara, Ichirou Karahara

Accounting: Toshiaki Kozuka

Program: Shuh-ichi Nishikawa (Chair), Satoru Okamoto, Yusuke Kazama, Toshiaki Kozuka, Takanori Kobayashi, Tatsuya Sakai, Katsuhiro Shiono, Hidefumi Shinohara, Tsubasa Shoji, Daisuke Seo, Hiroki Takagi, Taisuke Nishimura, Tomoaki Nishiyama, Hiroshi Hayashi, Shunsuke Miyashima

Venue: Tomohiro Imamura, Norikuni Ohtake, Satoru Okamoto, Yusuke Kazama, Akira Kato, Hiroyuki Kamachi, Takanori Kobayashi, Katsuhiro Shiono, Tsubasa Shoji, Nobuko Sumiya, Hiroki Takagi, Miho Takemura, Daisuke Tamaoki, Masahiro Nishihara, Tatsuro Hamada, Hiroshi Hayashi, Yasuko Hayashi, Kotaro Miura, Koji Murai, Masayuki Yamamoto, Yoshimi Yamamura, Tatsuya Wakasugi

Hybrid: Rumiko Kofuji, Daisuke Seo, Daisuke Tamaoki, Tomohiro Imamura

Advertisement: Masaki Ito, Rumiko Kofuji

Presentations by High School Students: Masami Sekine, Hiroki Takagi, Hiroyuki Takahara, Osamu Nakayachi, Miho Takemura

Banquet: Takumi Nishiuchi, Tatsuro Hamada

Nursery: Rumiko Kofuji, Miho Ikeda, Tomoaki Nishiyama

Conference Secretariat

c/o Nakanishi Printing Co., Ltd.
Shimodachiuri-Ogawa, Kamigyo-ku, Kyoto 602-8048, Japan
E-mail: jspp2025@nacos.com

Meeting Information

Program

1. General Information

1-1. Important Notice

1) Hybrid meeting

- The Annual Meeting will be held in a hybrid style: poster presenter must be on-site at Kanazawa University; oral presentations and symposia are presented on-site or online remotely. Presentations can be viewed on-site or remotely. Online participants are requested to log in to the web abstracts (ORSAM portal) on the Annual Meeting website. After logging in, you can attend sessions, including oral presentations, symposia, luncheon seminars and some related meetings. You can also view posters and chat with presenters online. Poster presentations of high school students' biological research will be given on-site but will not be delivered online.
- For the latest information on the Annual Meeting, please visit the Annual Meeting website (https://jspp.org/annualmeeting/66/).
- Awards ceremony and award lectures will be given on-site but will not be delivered online.

2) Program

A simple program booklet will be sent to participants who have paid the registration fee.

3) Abstract Book

- The program and abstracts are accessible electronically via the ORSAM portal site.
- The PDF for the Abstract Book can be downloaded from the meeting website only by participants who have paid the registration fee.

4) Registration of attendance [see also section 1-3]

- The deadline for registration and payment of the registration fee is February 3rd (Mon), 2025. Please note that even if you have registered online, you will not be able to participate if you have not paid the registration fee by the deadline. The account information of the ORSAM portal site will be sent to registered participants in early March.
- On-site registration is available at the venue. We only accept cash payments.

5) Oral Presentation [see also section 1-4]

Some of the oral presentations and symposia will be presented remotely. Online presentations are only allowed for presenters who have registered as such at the time of registration of presentation. If you did not register at the time of abstract submission, you must present on-site.

6) Poster presentations [see also section 1-4]

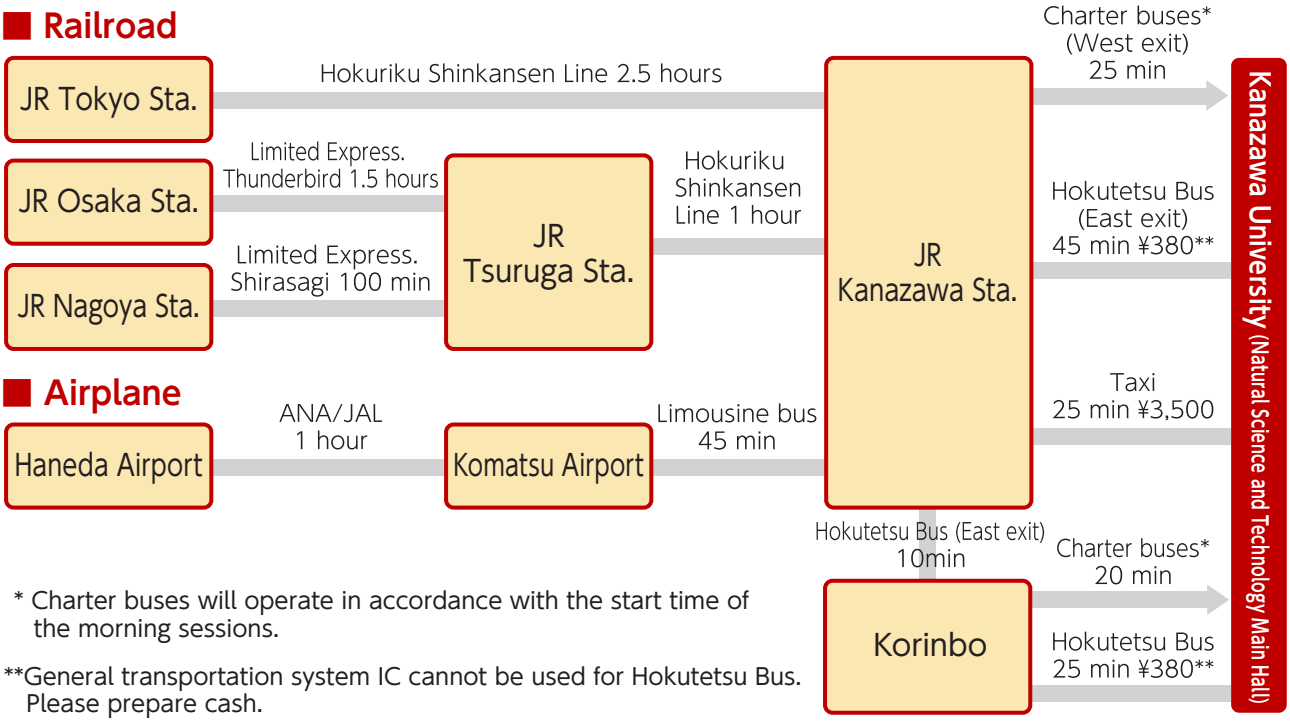
- Poster viewings and discussions will be held on-site. You can also view posters and chat with presenters online.
- PCP Poster Award
  - PCP Poster Award has been newly established from this annual meeting. The awardees will be selected based on poster presentations by student applicants, with the evaluation conducted primarily by PCP editors, including those visiting Japan.
  - The titles submitted for the PCP Poster Award are indicated by adding P to their presentation numbers in the poster presentation program. Additionally, a special mark is placed on the number cards of the posters to signify their submission for the award.
  - The judges will visit the applicant's poster during their presentation time. During the evaluation, the presentation and Q&A must be conducted in English.
  - The awardees and the prizes will be announced at the banquet.

About the Meeting Logo

The logo for the Kanazawa Annual Meeting is designed with motifs inspired by the Yukitsuri of Kenrokuen Garden and the Umebachi crest, the emblem of the Maeda family, the feudal lords of the Kaga Domain. These elements are enclosed within a decorative Mizuhiki knot, a traditional craft believed to have originated in Kanazawa. This logo represents the image of Kanazawa as a flourishing castle town that has nurtured its unique culture and arts.

1-2. Venue and Access

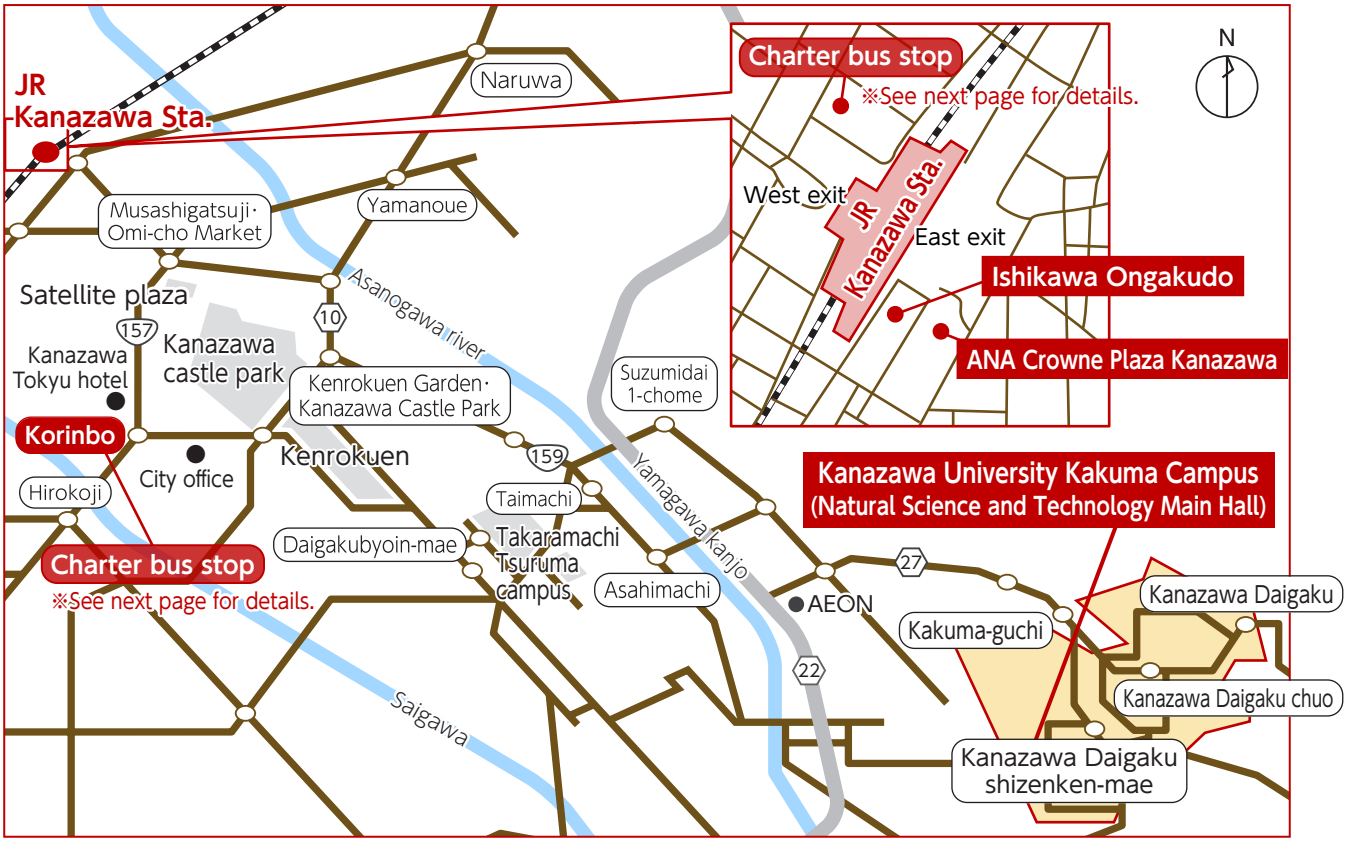
Railroad



* Charter buses will operate in accordance with the start time of the morning sessions.

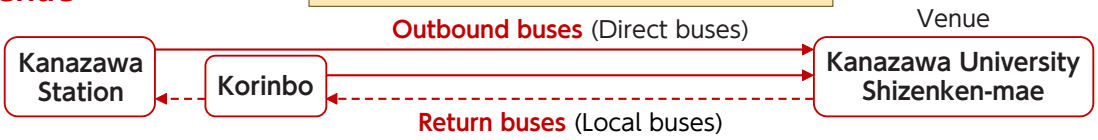
**General transportation system IC cannot be used for Hokutetsu Bus. Please prepare cash.

Kanazawa City



Bus transportation to the venue

・Fare-free charter buses
・Please show your name tag when you board.



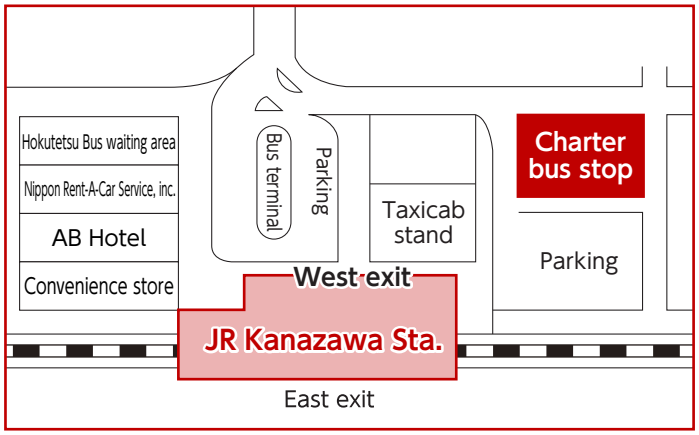
・Return buses from the venue to Kanazawa Station or Korinbo (temporary buses) will require users to pay the fare.
・Please take a numbered ticket when boarding the bus and pay the fare when getting off the bus.
・Fares must be paid in cash, and general transportation IC cards such as Suica cannot be used.
・The fare is 380 yen. We recommend preparing small change in advance.

Some return buses on the last day will be operated as direct buses to Kanazawa Station.
The number of buses is limited, so please board the arriving buses in order until they reach full capacity.

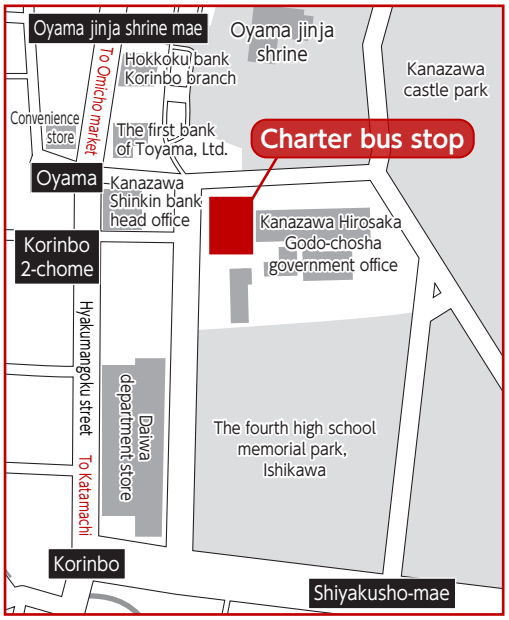
Outbound buses

・Direct buses (fare-free charter buses) to the venue will depart separately from Kanazawa Station (West Exit) and Korinbo (by Daiwa Department Store) (see map).
・You can board the bus from either departure point, regardless of the answer you gave during participant registration.
・Please show your name tag when you board.
・The buses will operate in accordance with the start time of the morning sessions (only during time slots that ensure arrival before the sessions begin). The estimated travel time is 25 minutes.
・Please refrain from bringing carry-on cases and other large items of luggage when boarding the buses, as this will affect the transportation capacity.

● JR Kanazawa Station (West exit) Bus stop



● Korinbo Bus stop



● Outbound buses operation schedule

	from Kanazawa Station	from Korinbo
March 14 1st day of the meeting	**7:40～8:30** 28 direct buses	**8:30～8:40** 5 direct buses
March 15, 16 2nd and 3rd day of the meeting	**7:20～8:00** 28 direct buses	**8:00～8:10** 5 direct buses

・Please come to the respective departure point at the time of departure and board the bus.
・If a large number of passengers board at once, the boarding process will take longer and may cause departure delays. Please arrive at the departure point with sufficient time.
・The bus will depart as soon as it reaches full capacity.
・The bus can transport 1,400 people from Kanazawa Station and 250 people from Korinbo to the venue.

Return buses

- Return buses from the venue to Kanazawa Station or Korinbo (temporary buses) will **require users to pay the fare**.
- **Please take a numbered ticket** when boarding the bus and pay the fare when getting off the bus.
- Fares must be paid in cash, and **general transportation IC cards such as Suica cannot be used**. (Hokuriku Railway's IC card iCa can be used, but a deposit is required for purchase.)
- **The fare from the venue to Kanazawa Station and Korinbo is 380 yen. We recommend preparing small change in advance, as exchanging bills may take time.**
- Some return buses on the last day will be operated as direct buses to Kanazawa Station. Please check the timetable to be announced in early March for details.
- The number of buses is limited, so please board the arriving buses in order until they reach full capacity.

◆ Other transportation option

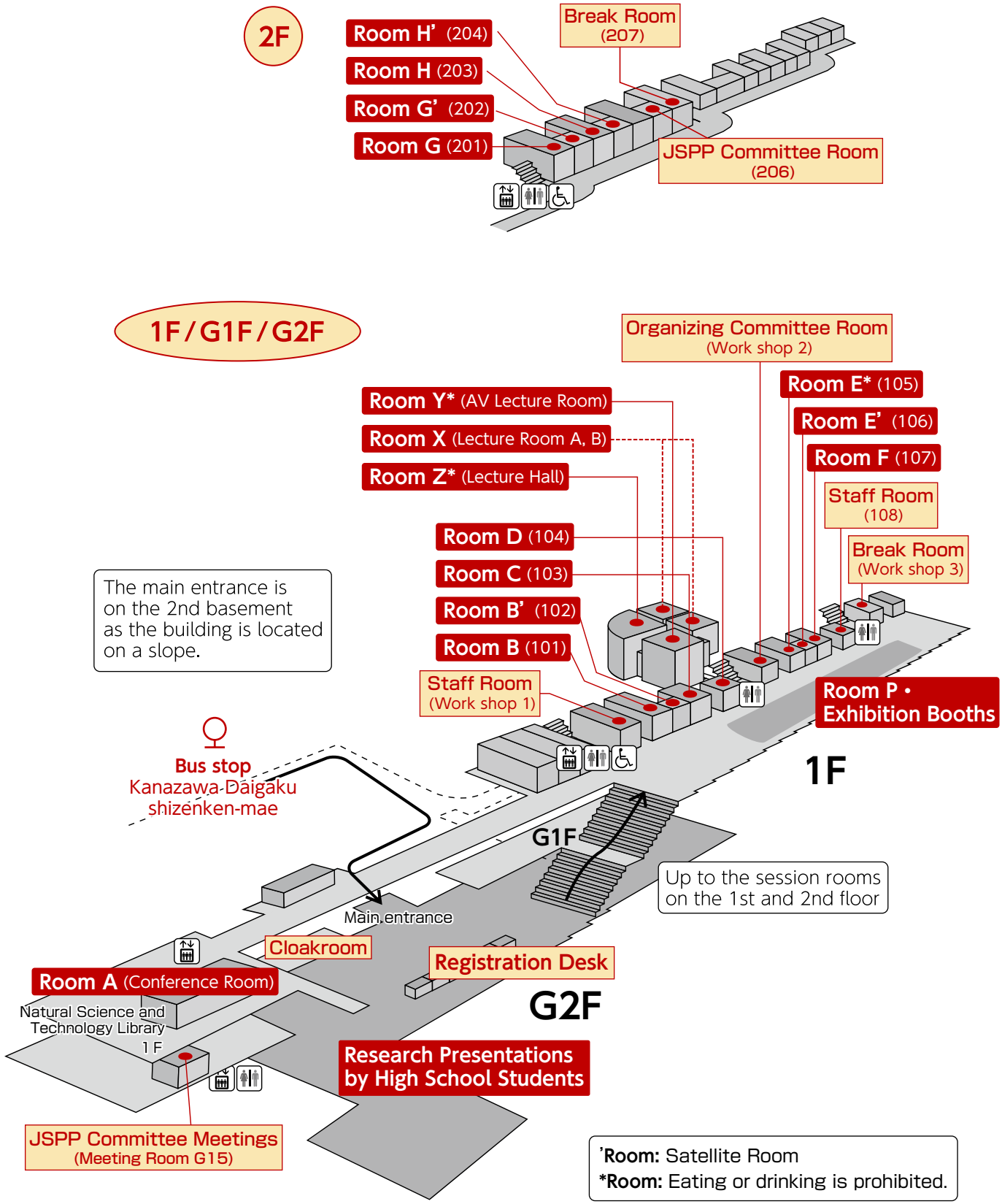
Taxi: It takes about 25 minutes from Kanazawa Station. Estimated fare is 3,500 yen.

Public bus: From Kanazawa Station East Exit (Kenrokuen Exit), board bus No. 93, 94, or 97 at Stop No. 8 and get off at "Kanazawa Daigaku Shizenken-mae". The estimated travel time is about 45 minutes, but the number of buses is limited.
Please check the Hokutetsu Bus website for details (http://www.hokutetsu.co.jp/route-bus).
A timetable revision is scheduled for March 15.

Please refrain from coming to the venue by car.

Conference Room

Natural Science and Technology Main Hall



'Room: Satellite Room
***Room:** Eating or drinking is prohibited.

1-3. Registration of Participants

1) Participants will receive a name tag, a receipt, and a program. The password for logging into the ORSAM portal site will be sent to registered participants in early March.
2) Those who have not pre-registered (i.e., have not paid the participation fee) are required to complete the registration process at the On-site Registration Desk at the venue. Payment must be made in cash only. As congestion is expected just before the start of the first day's sessions, please allow sufficient time for registration.

   On-site registration fee

	On-site registration fee (including fee for online access to the Abstract Book)	Banquet fee
JSPP, TSPB, ASPB member	14,000yen (tax free)	13,000yen (tax included)
JSPP, TSPB, ASPB student member	8,000yen (tax free)	8,000yen (tax included)
Non-member	16,000yen (tax included)	14,000yen (tax included)

   Those who have not pre-registered for the banquet and wish to participate must pay the banquet fee at the On-site Registration Desk. Payment can be made by 12:00 PM on March 15 (Day 2).

3) Regardless of membership status, undergraduate students, as well as accompanying teachers and students from middle and high schools, can participate free of charge. Those who have completed pre-registration should present their identification at the General Information Desk at the venue to receive their name tag. Those who have not pre-registered should complete the registration process at the On-site Registration Desk. Free participants will not receive a PDF version of the abstract book or a printed program booklet. However, the program can be downloaded at the annual meeting website.
4) Always wear your name tag at the venue. The Meeting Committee will check your name tag.

1-4. Notes for Presenters

Regardless of the language of the presentation, all figures and tables should be prepared in English. When preparing figures and tables for your presentation, please consider Color Universal Design.

1) General presentations

1. Qualification of presenters

   In accordance with JSPP Article 7(3) and 9(2), the presenters of the Annual Meeting must be JSPP members. If you are a presenter who is in the process of enrollment, please complete the procedure and the payment of the membership fee before the Annual Meeting; otherwise, your presentation will be canceled.
2. Style of presentation

   The type of presentation (poster or oral presentation) is decided by the program committee to meet the requests at the time of application. Please make sure to confirm the type of presentation through the program before proceeding with your preparations.
3. Poster presentations

   Posters should be in English. The poster panel is 90 cm (width) × 210 cm (height from the floor). Pushpins for mounting your poster are provided by the Meeting Committee.

• Schedule

Presentation No.	1P001–1P212	2P001–2P211
Mounting	March 14 9:00–12:00	March 15 10:30–12:00
Discussion	March 14 Odd numbers 17:00–17:45 Even numbers 17:45–18:30	March 15 Odd numbers 13:30–14:15 Even numbers 14:15–15:00
Removal	March 15 9:00–10:30	March 16 15:00–16:30

• The presenters should be in front of their posters during the discussion time.
• Any posters remaining after removal time will be removed by the Meeting Committee.
• Please provide your poster in PDF format so that it can be viewed online. The data size of your poster should be less than 2 MB if possible. The maximum size is 3 MB. Data larger than 3 MB cannot be submitted. We appreciate your cooperation in reducing the load on the system so that many people can participate in the meeting in a comfortable environment.
• The PDF file upload through the abstract submission system should be done between February 21 and 28. Uploading instructions will be provided to presenters. Please note that PDF files can only be viewed, not downloaded by participants.
• Please make sure the file is in PDF format. Other formats will not be accepted.
• During the online poster viewing period (March 11, 9:00 a.m. - March 16, 5:00 p.m.), participants can use the comment box on the abstract page of your poster posted on the web abstract portal (ORSAM portal) for questions and answers. Please respond to questions in the comments section in a timely manner.
• Posters will be available in the Web Abstracts (ORSAM Portal) until March 31, after which they will be automatically deleted. If you wish to have your data deleted immediately after the Annual Meeting, please check the “I wish to have my data deleted” checkbox when uploading your poster.

4. Oral presentations

• Slides used in oral presentations should be in English. Prepare a brief summary slide in English as the last slide.
• Each presentation is allotted a 15-min slot, a talk for 12 min and a discussion for 2 min 30 s, followed by a 30 s interval before the next speaker. To keep the session on schedule, please strictly follow the time limits.
• It is recommended that presentation slides be prepared with an aspect ratio of 4:3.

On-site presentations [see also section 1-6]

• There will be no preview room at this Annual Meeting. Instead, the room will be opened 15 minutes prior to each session, as the presenters can make operation test.
• Presenters at the venue will join the Zoom meeting by connecting to the wireless LAN (WLAN) with their eduroam accounts and sharing their slides on the screen. The Zoom screen received by the host PC will be projected on the screen at the venue. Thus, presenters will not directly connect their computers to a projector via a VGA nor HDMI cable. Please bring your slides (ppt or PDF files) saved on a USB flash drive as a backup.
• Presenters are requested to login Zoom meeting with the URL that will be available on the web abstracts (ORSAM portal).
• Presenters are requested to login the Zoom meeting before the previous presenter finishes his/her presentation and to wait at the next presenter’s seat with the file open. Screen Name should be composed of “Abbreviated

affiliation" and "Your name". After the previous presenter finishes his/her presentation, please "screen share" your presentation file and start your presentation immediately.

- On-site presenters must make sure that the computer can connect to WLAN (eduroam) and log in to Zoom before the session begins. If you encounter any connection issues, please notify the staff before the session starts.
- Please set the Zoom meeting with the video camera on and MICROPHONE OFF and use the microphone at the venue for your presentation. Your voice and questions from the venue will be distributed to online participants via the host PC. Microphone "on" on your computer may cause audio feedback.
- Laser pointers cannot be used. Presenters are requested to use the pointer function of the presentation program, so that online audience can see the pointer.
- Please deactivate "Screen Sharing" after your presentation as soon as possible.

Online presentations

- Online (remote) presentations are only allowed for presenters who have registered as such.
- Online presenters use the Zoom meeting. Presenters are requested to connect to the URL that will be available on the web abstracts (ORSAM portal).
- Screen Name should be composed of "Abbreviated affiliation" and "Your name."
- Zoom meetings will open 15 minutes before each session begins. Please use this time to check your setup if needed.
- Please enter the Zoom meeting and have your file open before the previous presenter finishes his/her presentation. After the previous speaker finishes his/her presentation, please turn on the microphone and camera, "share screen" your presentation file, and start your presentation.
- Please deactivate "Screen Sharing" after your presentation as soon as possible.

Questions and comments

- During the Q&A session, please follow the chairperson's instructions. Online participants should use the "Raise Hand" feature in Zoom and wait to be called. Please lower your hand once the Q&A ends.
- The comments box on the abstract page of the web abstracts (ORSAM portal) can also be used for Q&A. Presenters are requested to reply to the questions and comments using "Reply" function in a timely manner.

2) Symposium presentations

The procedures for symposium presentations are the same as those for oral presentations except for the presentation time slots. Please refer to "1) General presentations 4. Oral presentations" above or ask the organizers of your symposium for details.

1-5. Notes for Chairpersons

- Session chairs must arrive at the venue at least 15 minutes before the session starts and inform the venue staff (host PC operator & timekeeper) of their name..
- During their assigned presentations, session chairs should manage the session from the chairperson's seat, using the host PC for reference and the microphone provided at the seat. Online participants' "Raise Hand" actions and mute settings should be monitored on the host PC. To prevent audio issues, please refrain from entering Zoom meeting on your own PC.
- It is possible that some questions are hard to catch. In such cases, please encourage the audience to ask the question again in a louder voice or briefly repeat the question using the microphone.
- Participants at the venue will have priority for making questions. Online participants will use Zoom's hand-

raising function. Please nominate a participant who is raising his/her hand and ask him/her to speak after unmuting. After the Q&A session, please instruct the participants to mute again.

1-6. Free Wireless LAN Service

- Wireless LAN service (Wi-Fi 5) through an eduroam account is available at the meeting venue. Please obtain an eduroam account at your own institution in advance, ensure your PC's operating system is up-to-date, and test the connection before coming to the venue. The OS requirements and connection precautions will be posted on the website at least one week before the meeting.
- Guest accounts will be provided for those who cannot obtain an eduroam account at their institutions. Please ask at the registration desk.
- Please refrain from connecting to eduroam at the oral session room, except for giving presentation. If necessary, please connect to eduroam in the area outside the session rooms to avoid interfering the presentation.

1-7. Information Security

The participants in this Annual Meeting must agree not to tell third parties various passwords and URLs, not to record or shoot presentation screens, and not disseminate unpublished results learned at the meeting. In addition, the presenters should understand that the risk of recording and shooting your presentation and unpublished results will be increased at the online meeting compared with a conventional meeting. On the basis of the consent of the participants to the confidentiality obligation, the annual committee will take measures, such as to prevent participants from recording or shooting the presentation as much as possible.

1-8. Prohibitions

Taking pictures by the camera, video, cell phone, or audio recording without the permission of the presenter is strictly prohibited. It is also prohibited to publish the contents of the presentation on the Internet or SNS without the presenter's permission.

1-9. Misconduct

All presentations (including symposia, oral presentations, poster presentations, and award presentations) must be free of fabrication, falsification,, and plagiarism of data, as well as slander, libel, defamation, and other socially unacceptable content that is beyond the scope of academic criticism. If we judge that there is a problem with the content of the presentation, we may request that the content be revised or deleted, or that the presentation itself be cancelled.

1-10. Patents

Upon the revision of "Operational Guidelines for Applicants Seeking the Application of Exceptions to Lack of Novelty of Invention", a certificate of presentation unnecessary. Therefore, JSPP will not issue such a certificate in this Annual Meeting.

1-11. Conflict of Interest

If you have any conflicts of interest that should be reported in your presentation at the Annual Meeting, please disclose them.

1-12. Lunch

- You can have lunch at the tables on the promenade, at the desks at the venue, or in the break area. However, please note that eating and drinking are not allowed in rooms E, Y, and Z.
- If you have reserved a boxed lunch, please pick up your boxed lunch at the pick-up desk in the venue. Please show your name tag to the staff when you pick up your boxed lunch. The staff will cut off the portion of your name tag indicating that you have already purchased a boxed lunch. Please prepare your own drinks such as tea. Please return the container of your reserved lunch box to the pick-up point.
- A convenience store will be open near the entrance of the venue, but please note that the number of boxed lunches is limited and may be sold out..

1-13. Cloakroom

The cloakroom will be located near the main entrance. The cloakroom will be open during the following hours. Please be sure to pick up your baggage before the end of the day.

March 14th (Fri): 8:30–19:15

March 15th (Sat): 8:30–15:45

March 16th (Sun): 8:30–17:00

1-14. Nursery Service

A nursery service will be set up in the conference venue for participants who bring their children. The nursery will be staffed by professional caregivers from an external service. Those who have registered to use the room will receive an e-mail with details about the terms of use. The registration has been closed at an earlier deadline.

1-15. Contact Information

Send any questions to the Annual Meeting Committee by e-mail to jspp2025@nacos.com or visit the registration desk.

2. Contents of the Annual Meeting

2-1. Banquet

Date: March 15 (Sat.)

Place: ANA Crowne Plaza Hotel Kanazawa

https://www.ihg.com/crowneplaza/hotels/us/en/ishikawa/qkwja/hoteldetail

Those who wish to attend the banquet without prior registration are requested to pay the banquet fee at the registration desk by 12:00 p.m. on the day of the banquet (March 15). If the number of applicants reaches the maximum number, registration will be closed at that time.

2-2. JSPP Awards Ceremony and Award Lectures

Date and time: March 15th (Sat) 16:30–18:30

Venue: Ishikawa Ongakudo (near Kanazawa Station)

Please see the program p. 19 for details.

2-3. Symposia

Ten symposia will be held at the 66th Annual Meeting. For the contents and purpose of each symposium, please see the program p. 20 for details.

Day 1, March 14th (Fri) 9:30–12:30

♦ **S01** Intercellular and Inter-organismal Communication (Room X)

♦ **S02** To be or not to be: intricate controls on developmental fate determination (Room Y)

♦ **S03** New horizon of plant cell biology: novel insights into organization, dynamics, and functions of plant cell cortex (Room Z)

Day 1, March 14th (Fri) 14:00–16:45

♦ **S04** Underground Chatter: The hidden but lively exchange at the root-soil interface (Room X)

♦ **S05** Toward Elucidating PHYTOCOSM: Multiscale Symbioses Between Photosynthetic and Heterotrophic Organisms on Earth (Room Z)

Day 2, March 15h (Sat) 9:00–12:00

♦ **S06** Multi-signal processing mechanisms: how plants simultaneously deal with different stimuli? (Room X)

♦ **S07** Advanced plant -omics in plant sustainability and environmental resilience (Room Y)

♦ **S08** The Symposium of Phototrophic Microorganisms (Room Z)

Day 3, March 16th (Sun) 9:00–12:00

♦ **S09** Singularity of the research on light-harvesting antenna complexes (Room Y)

♦ **S10** Spatial sensing, design, production control and functional analysis of plant molecules (Room Z)

2-4. Special Program: "Research Presentations by High School Students"

A special program, "Research Presentations by High School Students" will be held during the Annual Meeting. It is expected that many high school students will participate in the special program and carry out the active discussion. Awards will be given to high school students on a competitive basis. The abstracts of poster presentations by high school students can be downloaded as a separate supplement (PDF).

Date and time: March 16th (Sun) 10:00–15:00

Venue: Natural Science and Technology Main Hall, Kakuma Campus, Kanazawa University (On-site only)

2-5. Luncheon Seminars

Registration is not required. Please see the meeting website or the program p. 30 for details.

♦ **Documentary Channel Co., Ltd.**

Date and time: March 14th (Fri) 12:45–13:45

Venue: A

Organizer: Documentary Channel Co., Ltd.

♦ **PCP Luncheon Seminar "What makes a good article?"**

Date and time: March 14th (Fri) 12:45–13:45

Venue: B

Organizer: PCP Editors Committee

Sponsor: Oxford University Press

♦ **Leica Microsystems**

Date and time: March 14th (Fri) 12:45–13:45

Venue: X

Organizer: Leica Microsystems

♦ **JSPP Luncheon Seminar "Why Study/Work Abroad? - Voices of Experience"**

Date and time: March 15th (Sat) 12:15–13:15

Venue: A

Organizer: JSPP International Committee / UJA (United Japanese Reserchers Around the World)

♦ **EVIDENT Luncheon Seminar**

Date and time: March 15th (Sat) 12:15–13:15

Venue: X

Organizer: EVIDENT corp.

♦ **GRA&GREEN Inc.**

Date and time: March 16th (Sun) 12:15–13:15

Venue: A

Organizer: GRA&GREEN Inc.

♦ **JSPP Luncheon Seminar "Let's learn systems to support our life - toward ideal work-life balance-"**

Date and time: March 16th (Sun) 12:15–13:15

Venue: B

Organizer: JSPP Gender Equality Committee

2-6. Satellite Meetings

Please see the outline on the program p. 37 for details.

♦ **The 27th Plant Organelle Workshop**

Date and time: March 13th (Thu) (The day before the Meeting), 13:00–18:50

Venue: The Kanazawa Chamber Of Commerce & Industry

Representative Organizer: Yoshiki Nishimura (Waseda University)

♦ **3rd Workshop on Plant Hormone Analysis**

Date and time: March 13th (Thu) (The day before the Meeting), 13:30–15:55

Venue: Room B

Representative Organizer: Izumi Mori (Okayama University)

♦ **The 42nd Meeting of the Japanese Society for Young Plant Physiologists**

Date and time: March 13th (Thu) (The day before the Meeting), 15:30–18:00

Venue: Room Z

Representative Organizer: Takehiro Ito (Tokyo University of Agriculture and Technology)

♦ **21st Japan plasmodesmata meeting**

Date and time: Day 1, March 14th (Fri), 18:30–20:30

Venue: Room D

Representative Organizer: Yusuke Ohba (Teikyo University)

♦ **Plant Science Presentation Workshop 2025 "Let's Speak, Communicate, and Connect in English!"**

Date and time: Day 1, March 14th (Fri), 19:00–20:30

Venue: Room B

Representative Organizer: Chihiro Furumizu (Hiroshima University)

2-7. JSPP Committee Meetings

Date and time: March 13th (Wed) (The day before the meeting)

17:00–19:30 Board of Delegates' Meeting

The other committee meetings will be held onsite or online on other dates.

The invitations will be sent to the committee members from the JSPP Secretariat.

Time table Day 1, Fri., March 14

in hybrid style (both online and on-site)

＊=on-site only

	9	10	11	12	13	14	15	16	17	18	19
A		Photosynthesis			Luncheon Seminar Documentary Channel Co., Ltd.		Photosynthesis				
B		Development/Morphogenesis			Luncheon Seminar PCP		Development/Morphogenesis				
C		Organelles/Cytoskeleton					Organelles/Cytoskeleton				
D		Genome function/gene regulation					Genome function/ gene regulation				
E		Environmental response B/ Environmental stresses					Flowering/Clock				
F		Plant hormones/ Signaling molecules					Plant hormones/ Signaling molecules				
G		Reproduction					Biomembrane/Ion and solute transport				
H		Plant-organism interaction A					Systems biology				
P		Poster presentation＊									
		Mounting posters 1P001 ～ 1P212							Questions and answers 1P001 ～ 1P212		
									Odd numbers	Even numbers	
X		Symposium S01 Intercellular and Inter-organismal Communication			Luncheon Seminar Leica Microsystems K.K.		Symposium S04 Underground Chatter: The hidden but lively exchange at the root-soil interface				
Y		Symposium S02 To be or not to be: intricate controls on developmental fate determination									
Z		Symposium S03 New horizon of plant cell biology: novel insights into organization, dynamics, and functions of plant cell cortex					Symposium S05 Toward Elucidating PHYTOCOSM: Multiscale Symbioses Between Photosynthetic and Heterotrophic Organisms on Earth				
Other											

Time table Day 2, Sat., March 15

in hybrid style (both online and on-site)

＊=on-site only

	9	10	11	12	13	14	15	16	17	18	19
A	Photosynthesis				Luncheon Seminar International Committee						
B	Development/Morphogenesis										
C	Organelles/Cytoskeleton Cell cycle/Cell division										
D	Primary metabolism										
E	Environmental response B/ Environmental stresses										
F	Plant hormones/ Signaling molecules										
G	Reproduction										
H	Plant-organism interaction B										
P	Poster presentation＊										
	Poster removal 1P001 ～ 1P212		Mounting posters 2P001 ～ 2P211			Questions and answers 2P001 ～ 2P211					
						Odd numbers	Even numbers				
X	Symposium S06 Multi-signal processing mechanisms: how plants simultaneously deal with different stimuli?				Luncheon Seminar Evident Corporation						
Y	Symposium S07 Advanced plant -omics in plant sustainability and environmental resilience										
Z	Symposium S08 The Symposium of Phototrophic Microorganisms										
Other									JSPP Awards: Ceremony and Lectures＊ Ishikawa Ongakudo Hougaku Hall		Banquet＊ ANA Crowne Plaza Kanazawa

Time table Day 3, Sun., March 16

in hybrid style (both online and on-site)

＊=on-site only

	9	10	11	12	13	14	15	16	17	18	19
A	Photosynthesis				Luncheon Seminar GRA&GREEN Inc.	Photosynthesis					
B	Development/Morphogenesis				Luncheon Seminar on Gender Equality	Development/ Morphogenesis					
C	Environmental response A/ Physiological responses					Environmental response A/Physiological responses					
D	Primary metabolism Specialized (secondary) metabolism					Specialized (secondary) metabolism					
E	Environmental response B/ Environmental stresses					Environmental response B/ Environmental stresses					
F	Plant hormones/ Signaling molecules					Cell wall					
G	New technology					Photoreceptors/ Photoresponses					
H	Plant-organism interaction B					Membrane trafficking Bioresources					
P	Poster presentation＊						Poster removal 2P001 ～ 2P211				
X											
Y	Symposium S09 Singularity of the research on light-harvesting antenna complexes										
Z	Symposium S10 Spatial sensing, design, production control and functional analysis of plant molecules										
Other	Special Program: "Research Presentations by High School Students" Discussion, Award ceremony Kanazawa University Kakuma Campus Natural Science and Technology Main Hall＊										
	8:30- Mounting posters	Odd numbers	Even numbers	All numbers	Lunch time (Room X)	Award ceremony (Room X)	Discussion				

JSPP Award, JSPP Young Investigator Awards, PCP Best Paper Award, PCP Top Cited Paper Awards, and JSPP Honorary Membership Award

Date Sat., March 15, 16:30–18:30 **Venue** Ishikawa Ongakudo Hougaku Hall

16:30 Reports on Selection Process — Chairpersons of Award Committee

16:39 JSPP Award, JSPP Young Investigator Awards, PCP Award and PCP Top Cited Paper Awards — JSPP President

16:50 Honorary Membership Award — JSPP President
Ikuko Hara-Nishimura (Professor Emeritus, Kyoto University; Professor Emeritus, Konan University)
Mikio Nishimura (Professor Emeritus, NIBB; Professor Emeritus, SOKENDAI)

Award Lectures

Language: Japanese

17:07 A01 JSPP Award
"Regulatory mechanisms of sexual reproduction in land plants: Insights from the liverwort *Marchantia polymorpha*"
Takayuki Kohchi (Graduate School of Biostudies, Kyoto University)

17:25 A02 JSPP Young Investigator Award
"Elucidation of the molecular mechanisms underlying the regulation of leaf senescence"
Yasuhito Sakuraba (AgTECH, Graduate School of Agricultural and Life Sciences, The University of Tokyo)

17:34 A03 JSPP Young Investigator Award
"Diverse Lifestyles of Photosynthetic Organisms from the View of Plant Physiology"
Ginga Shimakawa (Graduate School of Agricultural Science, Kobe University)

17:43 A04 JSPP Young Investigator Award
"Study on early stem development"
Katsutoshi Tsuda (National Institute of Genetics)

17:52 A05 JSPP Young Investigator Award
"Molecular Mechanisms of Pre-fertilization Barriers in Plants"
Sota Fujii (Graduate School of Agricultural and Life Sciences, The University of Tokyo)

18:01 A06 JSPP Young Investigator Award
"Elucidating the mechanisms of lipid metabolism regulation in microalgae under various environmental stress conditions"
Yasuyo Yamaoka (Department of Biotechnology, The Catholic University of Korea)

18:10 A07 PCP Best Paper Award
Tatsuaki Goh, Yu Song, Takaaki Yonekura, Noriyasu Obushi, Zeping Den, Katsutoshi Imizu, Yoko Tomizawa, Yohei Kondo, Shunsuke Miyashima, Yutaro Iwamoto, Masahiko Inami, Yen-Wei Chen, Keiji Nakajima
"In-Depth Quantification of Cell Division and Elongation Dynamics at the Tip of Growing Arabidopsis Roots Using 4D Microscopy, AI-Assisted Image Processing and Data Sonification"
Plant Cell Physiol. 64 (11): 1262–1278 (2023)
Keiji Nakajima (Graduate School of Science and Technology, NAIST) , et al.

PCP sponsored symposium

Intercellular and Inter-organismal Communication

Date Fri., March 14, 9:30–12:25 **Venue** Room X

Organizers: Jenny Russinova (VIB-UGent Cent. Plant Sytem. Biol.) / Tetsuya Higashiyama (Grad. Sch. Sci., Univ. Tokyo)

This symposium focuses on intercellular and inter-organismal communication, a key research area highlighted in four recent and upcoming special issues of Plant and Cell Physiology (PCP). Editors of PCP associated with these topics and special issues will come together to present their research, exploring the similarities and differences in the cellular and molecular genetic bases underlying various biological phenomena. Attendees will gain cutting-edge insights into this field, learn about the related PCP special issues, and have an opportunity to connect with editors in this area.

9:30 Opening Remarks
Miki Matoba (Oxford Univ. Press)

9:35 Introduction of PCP's Upcoming Special Issues
Lili Costa (Oxford Univ. Press)

Chairperson: Tetsuya Higashiyama

9:40 S01-1 Brassinosteroids in Transit: The Role of Short-Distance Transport in Maintaining Brassinosteroid Homeostasis
Eugenia Russinova[1,2] ([1]Department of Plant Biotechnology and Bioinformatics, Ghent University, 9052 Ghent, Belgium, [2]Center for Plant Systems Biology, VIB, 9052 Ghent, Belgium)

Chairperson: Eugenia Russinova

10:10 S01-2 Cell-to-cell communication in Sexual Reproduction
Tetsuya Higashiyama (Grad. Sch. Sci., Univ. Tokyo)

10:40 Break

10:50 S01-3 The form of plant vascular biology to come
Koh Aoki[1,11], Yuki Kondo[2,11], Michitaka Notaguchi[3,11], Misato Ohtani[4,11], Masatsugu Toyota[5,11], Masashi Asahina[6,11], Tomomichi Fujita[7,11], Tomoyuki Furuya[2,11], Takahiro Hamada[8,11], Kensuke Kawade[5,11], Ken-ichi Kurotani[9,11], Kazuki Motomura[10,11], Kyoko Ohashi-Ito[4,11] ([1]Grad. Sch. Agric., Osaka Metro. Univ., [2]Osaka Univ., [3]Kyoto Univ., [4]Univ. of Tokyo, [5]Saitama Univ., [6]Teikyo Univ., [7]Hokkaido Univ., [8]Okayama Univ. of Sci., [9]Nagoya Univ., [10]Ritsumeikan Univ., [11]PVB2025 Local Org. Com.)

11:20 S01-4 The biology of parasitic plants – kin recognition in plant-plant interactions
Satoko Yoshida (NAIST Bio)

Chairperson: Tetsuya Higashiyama

11:50 S01-5 Local and systemic regulation of nodulation in *Medicago truncatula*
Florian Frugier (Institute of Plant Sciences - Paris Saclay (IPS2), CNRS, Paris-Saclay University, France)

12:20 Closing Remarks
Eugenia Russinova

To be or not to be: intricate controls on developmental fate determination

Date Fri., March 14, 9:30–12:30 **Venue** Room Y

Organizers: Momoko Ikeuchi (Nara Institute of Science and Technology) / Makoto Shirakawa (Nara Institute of Science and Technology)

The appropriate control on developmental decisions are among key survival strategies for plants. Recent advances in revolutionary technologies including single-cell omics and live imaging have enabled us to describe developmental events with unprecedented spatiotemporal resolution. Mathematical and computational approaches have proven powerful in interpreting these high-resolution data. In this symposium, we will highlight interdisciplinary approaches to understanding the key principles of developmental fate decisions.

9:30 Introduction
Momoko Ikeuchi

Chairperson: Momoko Ikeuchi

9:35 S02-1 START domains generate paralog-specific regulons from a single network architecture
Aman Husbands (University of Pennsylvania)

10:00 S02-2 Vascular cell fate bifurcation: Xylem or Phloem?
Shunji Shimadzu, Yuki Kondo (Grad. Sch. Sci., Osaka Univ.)

10:25 S02-3 Florigen relay in rice shoot apical meristem
Moeko Sato[1], Hiroyuki Tsuji[1,2] ([1]Kihara Institute for Biological Research, Yokohama City University, [2]Bioscience and Biotechnology Center, Nagoya Univ.)

10:50 S02-4 Co-option and neofunctionalization of stomatal executors for defense against herbivores in Brassicales
Makoto Shirakawa (Nara Institute of Science and Technology)

11:10 Break

Chairperson: Makoto Shirakawa

11:15 S02-5 Mechanical interactions between tissue layers underlie plant morphogenesis
Daniel Kierzkowski[1], Sylvia Silveira[1], Loann Collet[1], Sahil Haque[1], Luc Lapierre[1], Agnieszka Bagniewska-Zadworna[3], Frederick Gosselin[2], Richard Simon Smith[4], Anne-Lise Routier-Kierzkowska[1] ([1]University of Montreal, Canada, [2]Politechnique Montreal, Canada, [3]Adam Mickiewicz University, Poland, [4]John Innes Center, UK)

11:40 S02-6 Modelling growth constraints of plant organ shape and arrangement
Koichi Fujimoto[1], Naoya Kamamoto[1], Motohiro Fujiwara[2] ([1]Hiroshima Univ., [2]RIKEN BDR)

12:05 S02-7 Cell fate specification and self-organization during shoot regeneration
Momoko Ikeuchi, Yuki Doll (NAIST, bio)

12:25 Concluding remarks
Makoto Shirakawa

New horizon of plant cell biology: novel insights into organization, dynamics, and functions of plant cell cortex

Date Fri., March 14, 9:30–12:30 **Venue** Room Z

Organizers: Yoshihisa Oda (Grad. Sch. Sci., Nagoya Univ.) / Masayoshi Nakamura (ITbM, Nagoya Univ.)

The plant cell cortex is occupied by characteristic structures and molecules that play important roles in plant development and physiological responses. In recent years, new findings have been reported that challenge conventional models of their organization, dynamics, and signaling at the plant cell cortex. This symposium will focus on the emerging trend that marks a new era in plant cell biology.

9:30 Introduction
Yoshihisa Oda

Chairperson: Yoshihisa Oda

9:35 S03-1 Polaritome: Proteomic identification of cell polarization factors in plants
Akira Yoshinari[1,2] ([1]IAR, Nagoya Univ., [2]WPI-ITbM, Nagoya Univ.)

10:00 S03-2 The role of motor-mediated intracellular transport in de novo formation of the plant cell cortex
Moe Yamada (Grad. Sch. Sci., Nagoya Univ.)

10:25 S03-3 Microtubule nucleation apparatus in plant cells
Masayoshi Nakamura (Nagoya University, ITbM)

10:50 Break

Chairperson: Masayoshi Nakamura

11:05 S03-4 Control of plasma membrane-associated actin polymerization specifies the pattern of the cell wall in xylem vessels
Saku Kijima[1], Takema Sasaki[2], Yuichiro Kikushima[2], Daisuke Inoue[3], Shingo Sakamoto[1], Yuki Kondo[4], Soichi Inagaki[5], Masatoshi Yamaguchi[6], Nobutaka Mitsuda[1], Yoshihisa Oda[2] ([1]AIST, Bioproduct. Res. Inst., [2]Nagoya Univ., Grad. Sci., [3]Kyushu Univ., Fac. Des., [4]Osaka Univ., Grad. Sci., [5]Univ. Tokyo, Biol. Sci., [6]Saitama Univ., Sci. Eng.)

11:30 S03-5 Temporal changes in surface tension guide the accurate asymmetric division of Arabidopsis zygotes
Satoru Tsugawa[1], Zichen Kang[1], Sakumi Nakagawa[2], Hikari Matsumoto[2], Yukitaka Ishimoto[3], Tomonobu Nonoyama[1], Yuga Hanaki[2], Minako Ueda[2] ([1]Mech. Eng., Akita Pref. Univ., [2]Grad. Sch. Life. Sci., Tohoku Univ., [3]Sci. Eng., Saga Univ.)

11:55 S03-6 The regulatory platform for auxin transport at the cell cortex determined by organelle position
Miyo T. Morita, Shogo Mori, Hiromasa Shikata, Takeshi Nishimura (NIBB)

12:20 Discussion
Masayoshi Nakamura

Underground Chatter: The hidden but lively exchange at the root-soil interface

Date Fri., March 14, 14:00–16:45 **Venue** Room X

Organizers: Ryohei Thomas Nakano (Hokkaido Univ.)

Plant immunity plays a significant role in interactions not only with pathogens but also with commensal microbial communities (plant microbiota). While the mechanisms of plant immunity in aerial tissues have been extensively studied, much remains unknown about how immunity functions in underground tissues. This symposium aims to explore the functions of root immunity from multiple aspects.

14:00 Opening Remark
Ryohei Thomas Nakano

Chairperson: Hiroaki Adachi

14:05 S04-1 Pipecolic Acid at the Crossroads: Orchestrating Microbiota Dynamics and Immunity Along the Root-Shoot Axis
Ruidong Huang, Yuxin Ren, Kenichi Tsuda (Huazhong Agricultural University)

14:35 S04-2 The role of root immunity in root-commensal interactions
Ryohei Thomas Nakano (Faculty of Science, Hokkaido Univ)

Chairperson: Ryohei Thomas Nakano

15:05 S04-3 Root-Nematode interaction: How do cyst nematodes regulate the host system?
Mina Ohtsu[1,2] ([1]NAIST, Bio Sci., [2]JST Sakigake)

15:35 S04-4 Molecular evolution of plant NLR immune receptors to recognize pathogens
Hiroaki Adachi (Grad. Sch. Agri., Kyoto Univ.)

16:05 S04-5 Root immune components mediate microbiome feedbacks in Arabidopsis
Klaus Schlaeppi (University of Basel, Switzerland)

16:35 Closing Remark
Ryohei Thomas Nakano

Toward Elucidating PHYTOCOSM: Multiscale Symbioses Between Photosynthetic and Heterotrophic Organisms on Earth

Date Fri., March 14, 14:00–16:45 **Venue** Room Z

Organizers: Kei Hiruma (Univ. Tokyo) / Makoto Hayashi (RIKEN) / Akira Mine (Kyoto. Univ)

In this symposium, we introduce the concept of "Phytocosm," a multiscale symbiotic system between photosynthetic organisms and microbes that emerges across diverse terrestrial and aquatic environments. Utilizing advanced techniques such as radioisotope imaging, metabolomics, and metagenomics, we aim to elucidate the mechanisms underlying the formation and function of the Phytocosms.

Chairperson: Kei Hiruma

14:00 Opening remark
Kei Hiruma

14:05 S05-1 Regulation of root symbioses in legumes
Makoto Hayashi (RIKEN Center for Sustainable Resource Science)

Chairperson: Makoto Hayashi

14:30 S05-2 Toward understanding the mechanisms of nutrient exchange between plants, fungi, and bacteria within root systems
Kei Hiruma (Grad. Sch. Art. Sci., Univ. Tokyo)

14:50 S05-3 Phosphate transport and response mechanisms revealed by micro-regional tracer imaging
Satomi Kanno (IAR., Nagoya Univ.)

15:15 Break

Chairperson: Akira Mine

15:25 S05-4 Application of metabolomics to visualize the dynamics of compounds in PHYTOCOSM
Nozomu Sakurai[1], Tetsuya Mori[2] ([1]Microalgal Metabolic Engineering Team, Kazusa DNA Res. Inst., [2]CSRS, RIKEN)

15:50 S05-5 Bacteria-mediated viral resistance in diatoms: A crucial system in phytoplankton-virus interactions
Kei Kimura (Faculty Agr., Saga Univ.)

16:15 S05-6 Adaptation of aquatic microbes to oligotrophic environments through photosymbiosis
Shin-ya Miyagishima[1,2], Ayumi Sato[1,2], Kaoru Okada[1,2] ([1]Natl. Inst. of Genet., [2]SOKENDAI)

16:40 Closing remark

Multi-signal processing mechanisms: how plants simultaneously deal with different stimuli?

Date Sat., March 15, 9:00–11:50 **Venue** Room X

Organizers: Ryuichi Nishihama (Tokyo University of Science) / Dolf Weijers (Wageningen University & Research)

Plants always face to various stimuli from the environment and process information of multiple signals at the same time via integration or distinction to optimize their growth or environmental responses. Recent studies reveal mechanisms by which plants do this at different levels in a signaling pathway, such as membrane receptors and cytoplasmic protein kinases, and even at the final enzyme level. This symposium showcases several examples of multi-signal processing mechanisms and provides a platform for discussion on strategies plants take to cope with various stimuli.

9:00 Opening remarks
Ryuichi Nishihama

Chairperson: Ryuichi Nishihama

9:05 S06-1 The regulatory mechanism of plasma membrane H^+-ATPase activity through multi-signal processing in light-induced stomatal opening
Saashia Fuji, Atsushi Takemiya (Grad. Sch. Sci. Tech. Innov., Yamaguchi Univ.)

9:30 S06-2 Phosphoproteomic screening for Raf36 substrates to elucidate the growth-stress tradeoff in Arabidopsis
Hinano Takase, Aina Nagano, Yoshiaki Kamiyama, Kota Yamashita, Sotaro Katagiri, Yangdan Li, Taishi Umezawa (Tokyo University of Agriculture and Technology)

9:55 S06-3 Comparative analysis identified deeply conserved mediators of rapid signaling
Dolf Weijers (Wageningen University, Laboratory of Biochemistry, the Netherlands)

Chairperson: Dolf Weijers

10:25 S06-4 Multi-signal processing of growth-promoting and stress-derived cues through granule formation of the B4 Raf-like kinase PRAF
Ryuichi Nishihama, Shota Yamauchi (Dept. Appl. Biol. Sci., Fac. Sci. Tech., Tokyo Univ. Sci.)

10:50 S06-5 Evolution and Divergence of ABA Signaling Regulation Through the Ethylene Receptor/RAF Complex
Yoichi Sakata (Dept. Bioscience, Tokyo Univ. Agricuture)

11:15 S06-6 Secrets of signalling specificity and crosstalk
Yan Ma (Gregor Mendel Institute, Vienna, Austria)

11:45 Closing remarks
Dolf Weijers

Advanced plant -omics in plant sustainability and environmental resilience

Date Sat., March 15, 9:00–12:00 **Venue** Room Y

Organizers: Yuki Nakamura (RIKEN CSRS) / Pao-Yang Chen (IPMB, Academia Sinica)

This symposium will bring together scientists using cutting-edge omics approaches at spatial, single-cell, and tissue levels to investigate plant sustainability and environmental resilience. The speakers will discuss recent advances in multi-omics technology, including transcriptomics, epigenomics, lipidomics, and proteomics, integrated into multidisciplinary systems to study plant function and its underlying mechanisms from genetics, epigenetics to downstream metabolites.

9:00 Opening remarks
Yuki Nakamura

Chairperson: Yuki Nakamura

9:10 S07-1 A spatial understanding of metabolic cooperation between plastids and ER in plant seed oil accumulation
Yuki Nakamura[1,2], Van Nguyen[1], Niña Alyssa M Barroga[1], Artik Elisa Angkawijaya[1] ([1]RIKEN CSRS, [2]Grad Sch Sci, U Tokyo)

9:25 S07-2 Lipid rhytmicity in *Arabidopsis thaliana* leaves and its importance in plant growth control
Artik Elisa Angkawijaya[1], Van Nguyen[1], Katharina Gutbrod[2], Helga Peisker[2], Peter Dörmann[2], Yuki Nakamura[1,3] ([1]Center for Sustainable Resource Science, RIKEN, Yokohama, 230-0045 Japan., [2]Institute of Molecular Physiology and Biotechnology of Plants, University of Bonn, D-53115 Bonn, Germany., [3]Department of Biological Sciences, Graduate School of Science, The University of Tokyo, Tokyo, 113-8654 Japan)

9:40 S07-3 Lipidomic dynamics in duckweeds under abiotic stress conditions
Yasuyo Yamaoka (Dept. of Biotechnology, The Catholic University of Korea)

9:55 S07-4 Detecting the Interplay Between DNA Methylation and Lipid Production in Plants
Jo-Wei Hsieh[1], Kuan-Lin Chen[1], Chia-Yen Wu[1], Van Nguyen[2], Anh H. Ngo[2], Nguyen M. Linh[2], Kuan-Ting Hsin[1], Yuki Nakamura[2], Paoyang Chen[1] ([1]Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, [2]RIKEN Center for Sustainable Resource Science, Yokohama, Japan)

10:10 S07-5 The unique biological properties of AGO1 reveal the autonomy of gene regulation in RNA silencing
Shih-Shun Lin, Zhao-Jun Pan, Wei-Lun Wei, Phuong-Anh Tran (Institute of Biotechnology, National Taiwan University)

10:25 Break

Chairperson: Pao-Yang Chen

10:45 S07-6 Epigenetic-Driven Synergistic Regulation of Transposons in Arabidopsis
Jo-Wei Hsieh[1,2], Ming-Ren Yen[1], Fuyu Hung[3,4], Keqiang Wu[3], Paoyang Chen[1,2] ([1]Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115201, Taiwan, [2]Genome and Systems Biology Degree Program, Academia Sinica and National Taiwan University, Taipei 10617, Taiwan, [3]Institute of Plant Biology, National Taiwan University, Taipei 10617, Taiwan, [4]RIKEN Center for Sustainable Resource Science, Yokohama 230-0045, Japan)

11:00 S07-7 Auxin fluctuation and PIN polarization in moss leaf cell reprogramming
Han Tang[1], Jiri Friml[2] ([1]Graduate Institute of Biochemistry, NCHU, [2]Institute of Science and Technology, Austria)

11:15 S07-8 Single-cell transcriptomics unveils xylem cell development and evolution
Chia-Chun Tung[1], Shang-Che Kuo[2], Chia-Ling Yang[3], Jhong-He Yu[1], Chia-En Huang[1], Pin-Chien Liou[1], Ying-Hsuan Sun[4], Peng Shuai[5], Jung-Chen Su[6], Chuan Ku[2,3], Ying-Chung Jimmy Lin[1,2] ([1]Department of Life Science and Institute of Plant Biology, National Taiwan University, Taipei 10617, Taiwan, [2]Genome and Systems Biology Degree Program, National Taiwan University and Academia Sinica, Taipei 10617, Taiwan, [3]Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, [4]Department of Forestry, National Chung Hsing University, Taichung 40227, Taiwan, [5]College of Forestry, Fujian Agriculture and Forestry University, Fuzhou 350002, China, [6]Department of Pharmacy, National Yang Ming Chiao Tung University, Taipei 11221, Taiwan)

11:30 S07-9 Divergence in Plasmodesmata Composition: A Proteomic Analysis Reveals Low Conservation Between Marchantia and Arabidopsis
Kuan Ju Lu, Hui Yu Chang (Grad. Inst. Biotech., Nat. Chung Hsing Univ.)

11:45 General discussion and closing remarks
Pao-Yang Chen

The Symposium of Phototrophic Microorganisms

Date Sat., March 15, 9:00–12:00 **Venue** Room Z

Organizers: Jiro Harada (Kurume Univ. Sch. Med.) / Yusuke Tsukatani (JAMSTEC, MRU) / Chihiro Azai (Fac. Sci. & Eng., Chuo Univ.)

In the current situation, various researches using photosynthetic microorganisms can be found in dispersed fields and societies. Here, we hold the symposium designated for "The Phototrophic Microorganisms" to expand super-interdisciplinary and cross-society exchanges leading new collaboration and other exciting activities. This symposium is also the 10th of the Symposium on Phototrophic Prokaryotes, which has been annually held as an associated meeting of the annual meeting of the JSPP.

9:00 Opening remarks
Jiro Harada

Chairperson: Chihiro Azai

9:05 S08-1 Reaction center of heliobacteria: structure, function, and properties
Hirozo Oh-oka (CELAS, Osaka University)

9:30 S08-2 Lipid modification of the extrinsic proteins of photosystem II in cyanobacteria
Hisako Kubota-Kawai[1], Mayuko Oshiumi[2], Naoki Mizusawa[2,3] ([1]Fac. Sci., Yamgata Univ., [2]Grad. Sch. Sci. Eng., Hosei Univ., [3]Res. Micro-Nano Tech., Hosei Univ.)

9:45 S08-3 Stabilization of photosystem II by lipid-modifications of proteins
Mayuko Oshiumi[1], Hisako Kawai-Kubota[2], Naoki Mizusawa[1,3] ([1]Grad. Sch. Sci. Eng., Hosei Univ., [2]Fac. Sci., Yamagata Univ., [3]Res. Micro-Nano Tech., Hosei Univ.)

10:00 S08-4 *Acaryochloris marina* NIES2412 absorbs and utilizes long-wavelength light
Mai Watanabe (Sch. Sci., Dep. Biol. Sci., Tokyo Metropolitan Univ.)

Chairperson: Yusuke Tsukatani

10:20 S08-5 Detection of light-harvesting bilin synthases via structural similarity and their relationship with light environments and molecular evolution
Keita Miyake[1], Naoki Konno[2], Wataru Iwasaki[2,3] ([1]Grad, Sch, Arts Sci., Univ. Tokyo, [2]Grad, Sch, Sci., Univ. Tokyo, [3]Grad, Sch, Frontier Sci., Univ. Tokyo)

10:40 S08-6 The Circadian Clock of Photosynthetic Prokaryotes
Kazuki Terauchi (College of Life Sciences, Ritsumeikan University)

11:05 S08-7 Co-evolution of life and photosynthesis: new chapters uncovered
Masaru Konishi Nobu[1], Arisa Nishihara[2], Yusuke Tsukatani[3], Chihiro Azai[4] ([1]JAMSTEC X-star, [2]Dept. of Life Sci. and Biotech., The Nat. Inst. of Adv. Indust. Sci. and Tech., [3]JAMSTEC Biogeochemistry Research Center, [4]Chuo U. Dept. Biological Sciences)

11:30 S08-8 Loss of photosynthesis and fates of non-photosynthetic plastid functions in multiple eukaryotic algal lineages
Keishiro Sano, Ryoma Kamikawa (Graduate School of Agriculture, Kyoto University)

11:55 Closing remarks
Yusuke Tsukatani

Singularity of the research on light-harvesting antenna complexes

Date Sun., March 16, 9:00–12:00 **Venue** Room Y

Co-sponsored by Grant-in-Aid for Transformative Research Areas (A) Photosynthesis ubiquity: Supramolecular complexes and their regulations to enable photosynthesis all around the globe
Grant-in-Aid for Transformative Research Areas (B) Restorative Cellular Functional Science: Reconstruction of Photosynthetic Antenna Complexes

Organizers: Yukako Hihara (Grad. Sch. Sci. Eng., Saitama Univ.) / Satoru Watanabe (Dept. Biosci., Tokyo Univ. Agric.)

Photosynthetic organisms have adapted to various growth habitats by evolving diverse light-harvesting antenna complexes. Here, researchers from different fields such as planetary science, data science, plant science and synthetic biology will gather to discuss the evolution and diversity of the light-harvesting antenna complex, with the aim of creating a singularity that will transform the research field.

9:00 Opening remarks
Yukako Hihara, Satoru Watanabe

Chairperson: Takako Ogawa

9:05 S09-1 Multidisciplinary approach to understanding the optimization mechanisms of light harvesting systems in green plants
Eunchul Kim[1], Yudai Nishitani[2], Daekyung Lee[3], Souichi Sakamoto[4], Heetae Kim[3], Akihito Ishizaki[4], Daisuke Yamamoto[2], Jun Minagawa[1] ([1]National Institute for Basic Biology, [2]Fukuoka University, [3]Korea Institute of Energy Technology, [4]Institute for Molecular Science)

9:25 S09-2 Analysis of environmental adaptation mechanisms of photosynthetic complex via molecular phylogeny and machine-laeraning
Ryuhei Mienei[1], Satoshi Ohmori[1], Atsushi Hijikata[2], Yuko Tuchiya[3], Tsuyoshi Shirai[1] ([1]Nagahama Inst. Biosci. Tech., Bioscience, [2]Tokyo Univ. Pharm. LifeSci., Lifescience, [3]AIST · AIRC)

9:50 S09-3 Green Ocean Hypothesis: Coevolution of Cyanobacteria and Surface Environment
Taro Matsuo[1], Kumiko Miwa[1], Yuri I. Fujii[2], Satomi Kanno[3], Yoko Yoshiyama[4], Keita Miyake[5], Naoki Konno[6], Hideaki Miyashita[2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Grad. Sch. Human Environ. Studies, Kyoto Univ., [3]Inst. Adv. Res., Nagoya Univ., [4]Dep. Agr., Ryukoku Univ., [5]Grad. Sch. Arts Sci., Univ. Tokyo, [6]Grad. Sch. Sci., Univ. Tokyo)

Chairperson: Eunchul Kim

10:15 S09-4 Dynamics of light-harvesting antenna complexes under natural environments revealed through metatranscriptomic analysis
Takako Ogawa[1], Jun Minagawa[2], Yukako Hihara[1] ([1]Saitama Univ., [2]National Institute for Basic Biology)

10:35 S09-5 Regulation of multiple phycobilisomes in response to light color and iron availability in cyanobacteria
Mutsumi Kubushiro, Masako Hamada, Toshihiko Eki, Shigeru Kawai, Yuu Hirose (Toyohashi Tech. Dept. of Appl. Chem. and Life Sci.)

Chairperson: Yu Hirose

10:55 S09-6 Functional modification of cyanobacterial phycobiliprotein and phycobilisomes through bilin metabolism control
Misaki Iwata[1], Mizuho Sato[1], Takeshi Kawaguchi[1], Kaisei Maeda[2], Mai Watanabe[3], Masahiko Ikeuchi[4], Rei Narikawa[3], Satoru Watanabe[1] ([1]Dept. Biosci., Tokyo Univ. Agric., [2]Inst. Innov. Res., Sci. Tokyo, [3]Dept. Sci., Tokyo Metro. Univ., [4]Grad. Arts Sci., Tokyo Univ.)

11:15 S09-7 A strategy for utilizing DNA nanostructures to construct light-harvesting complexes in vitro
Eiji Nakata[1], Futa Komatsubara[1], Ryunosuke Kondo[1], Peng Lin[1], Takashi Morii[1,2] ([1]IAE, Kyoto Univ., [2]Kyoto Koka Women's University)

Chairperson: Yukako Hihara

11:40 Panel discussion

Spatial sensing, design, production control and functional analysis of plant molecules

Date Sun., March 16, 9:00–12:00 **Venue** Room Z

Co-sponsored by JST PRESTO

Organizers: Kazuhiko Nishitani (Kanagawa Univ.) / Kanako Sekimoto (Yokohama City Univ.) / Yasuyuki Yamada (Kobe Pharma. Univ.)

JST PRESTO "Function and Regulation of Plant Molecules" [Plant Molecules] defines plant-derived compounds and related genes as "plant molecules" and promotes innovative and cross-disciplinary research to elucidate biological phenomena within living organisms and ecosystems for the effective use of molecules. In this symposium, six PRESTO researchers will present their recent results involved in "plant molecules".

Chairperson: Yasuyuki Yamada

9:00 S10-1 Spatiotemporal imaging of volatile molecules emitted from plants into the atmosphere
Kanako Sekimoto (Yokohama City Univ.)

9:30 S10-2 Molecular mechanisms of carbon dioxide sensing and signal transduction in plants
Yohei Takahashi (Nagoya Univ., ITbM)

10:00 S10-3 Mechanistic investigation and functional modification of terpene cyclases and oxidases using Computational Chemistry
Hajime Sato (Tokyo Univ., Grad. Sch. Agri. & Life Sci.)

Chairperson: Kanako Sekimoto

10:30 S10-4 Metabolic engineering of plant-specialized metabolism based on the diversified regulatory mechanisms
Yasuyuki Yamada (Kobe Pharma. Univ.)

11:00 S10-5 Integrated analysis of the cell wall-cuticle continuum: relationship between chemical structure, composition and transcriptional regulation
Yoshimi Oshima (AIST, Bioprod. Res. Inst.)

11:30 S10-6 Development of an artificial control system for seed germination: the application of germination-suppressing factors broken by the germination-inducing chemical
Kosuke Fukui (TUS, Applied Chemistry)

Professional filming tips-from timelapse to cryo-optical SEM imaging.

Date Fri., March 14, 12:45–13:45 **Venue** Room A

Speaker: Science videographer Eiji FUJIWARA Documentary Channel Co., Ltd.

In scientific research, the most important first step is to observe the object carefully and precisely. Plants may appear motionless, but through timelapse imaging, we can visualize their movements, which can give us true inspiration.

With professional expertise in both natural science and film direction, I have been involved in the production of TV programs and scientific documentaries. I am also enthusiastically dedicated to science education and making scientific discoveries with researchers. In this seminar, I will be sharing the tools and techniques that have developed over the course of 25 years working with my collaborators, and consequently I will be presenting some of my movies of plants and cells, which will take you on a tour into the fascinating micro- and slow-worlds of these living organisms.

I will also introduce our new table-top tribrid (Cryo-Optic-SEM built-in) microscope (#Tri*) that has been manufactured by our company, Documentary Channel Co., Ltd. The #Tri* can provide unique imaging opportunities by enabling us to observe unfixed, vapor undeposited, and quickly frozen specimens with optical and scanning electron microscopies, which are seamlessly switchable without breaking the vacuum. I will show new triplet images obtained using this microscope.

#Tri*
Tribrid Microscope
by the user for the future

Language: English (with supplementary use of Japanese)

PCP Luncheon Seminar
"What makes a good article?"

Date Fri., March 14, 12:45–13:45 **Venue** Room B

Speakers: Liliana Costa (Managing Editor), Haruhiko Jimbo (Budding Editor), Eugenia (Jenny) Russinova (Editor), Florian Frugier (Editor), Ken Tsuda (Editor), Tetsuya Higashiyama (EIC)

What makes a good article? Have you ever thought about it? The key points differ depending on your perspective—as a reader, an author, or an editor. Nonetheless, from all standpoints, a well-organized article can improve your visibility and academic progression.

At *Plant and Cell Physiology* (PCP), we aim to provide an excellent platform to stimulate the plant science research field and support its community. In this luncheon seminar led by our team of PCP editors, we will explore what constitutes a great article – considering all article types from research to review papers. We will also discuss how well-received articles are beneficial to all those involved in the process - authors, reviewers and editors. Through these tips and collective advice, we aim to encourage the submission of high-quality open-access articles that benefit the plant science community while enhancing the visibility of both the authors and PCP.

We look forward to seeing you there!

Seminar Overview:

1. Short presentations from speakers
2. Panel Discussion

Leica Microsystems K.K.

Date Fri., March 14, 12:45–13:45 **Venue** Room X

Speaker: Masaki Ito (Institute of Science and Engineering, Kanazawa University)

Proposing a novel molecular model for determining plant cell size

The size of a cell must be properly regulated to enable the expression of specific cell functions and to define the growth of multicellular organisms as structural units of tissues and organs. In proliferating cells, such as those in the meristem, cell size is determined by the balance between the frequency of cell division and the rate of cell expansion. Therefore, it is considered crucial to regulate the cell cycle dependently on cell size to maintain appropriate cell size. However, the mechanisms underlying such size-dependent cell cycle regulation remain poorly understood.

Our research has shown that the GRAS-type transcription factor SCL28 in Arabidopsis thaliana potentially plays a key role in determining cell size by suppressing the cell cycle in a size-dependent manner. Furthermore, SCL28 exhibits a unique intracellular localization, being present not only in the nucleus but also in plastids, which has led us to propose a novel model for cell size determination based on this unique subcellular localization of SCL28.

In this presentation, we will discuss the effectiveness of fluorescence lifetime imaging in observing the intracellular protein localization and outline a hypothesis on cell size regulation derived from our findings.

Speaker: Suguru Osari (Leica Microsystems K.K.)

Fluorescence lifetime applications: FRET, Biosensor and STED super-resolution microscope

The plant chloroplast etc. has autofluorescence signals. These can overlap with the desired fluorescence signals. The fluorescence lifetime, which has the completely different physical properties from the excitation and emission spectra, can separate the autofluorescence signals and the desired signals. With the fluorescence lifetime measure FRET efficiency, biosensor calcium ion concentration measurement and improve the resolution of STED super-resolution microscopy and so on. This seminar introduces fluorescence lifetime imaging applications using our confocal microscope, STELLARIS.

Luncheon Seminar
"Why Study/Work Abroad?—Voices of Experience"

Date Sat., March 15, 12:15–13:15 **Venue** Room A

Co-organized by the JSPP International Committee and the United Japanese Researchers Around the World (UJA)

Panelists: Koki Hayashi (Max Planck Institute of Molecular Plant Physiology; PhD candidate)
Hiromu Kameoka (CAS Center for Excellence in Molecular Plant Sciences; Group Leader)
Takuya Nagae (Riken CSRS; Post-doc)
Hokuto Nakayama (The University of Tokyo; Asiss. Prof.)
Kanane Sato (Tohoku University; Post-doc)

The Japanese Society of Plant Physiologists (JSPP) is committed to enhancing the international research competitiveness and visibility of the JSPP community. Recognizing the value of overseas experience for researchers, we acknowledge that, despite the growing interest in studying and working abroad, many hesitate to do so due to a lack of practical information, uncertainties from the COVID-19 pandemic, and global economic instability. We aim to address these concerns by highlighting the importance of firsthand insights from researchers with international experience, promoting studying/working abroad as a viable and valuable career opportunity.

In collaboration with the United Japanese Researchers Around the World (UJA), this luncheon seminar features speakers with diverse experiences in graduate and postdoctoral studies abroad in the short and long term. Speakers will join either on-site or online to share their insights through flash talks, followed by a panel discussion, where we will address questions from the audience.

We extend a warm welcome to all individuals, regardless of their specific interests/experience/willingness to take a career path outside of Japan.

Evident Corporation Luncheon Seminar

Date Sat., March 15, 12:15–13:15 **Venue** Room X

Sponsor: Evident Corporation

Long-term time-lapse imaging of physiological response dynamics using luminescent reporters

Yuki Kondo, Ph.D. (Osaka University Graduate School of Science, Department of Biological Sciences)

In cell imaging, it is common to observe fluorescent proteins such as GFP using a confocal laser microscope or a multiphoton microscope. However, the effects of phototoxicity and photoresponses caused by the excitation light on the observation of living cells cannot be ignored. In this seminar, I will focus on time-lapse imaging using luciferase-based luminescent reporters. Here I will introduce examples of time-lapse imaging of the dynamics of plant physiological responses, such as plant hormone responses, cell fate dynamics, and circadian clock oscillation.

1) Shimadzu et al., *Quant Plant Biol.* 3, e18, 2022
2) Toyokura et al., *Dev Cell.* 48, 64-75., 2020
3) Furuya et al., *Nat Plants.* 10, 785-797., 2024
4) Nurani et al., *Plant Cell Physiol.* 61, 255-264., 2020

"Evident advanced imaging" to the next stage

Naoki Kozai, Evident Corporation

IXplore IX85

Automated Inverted Microscope

FLUOVIEW FV4000

Confocal Laser Scanning Microscope

LUPLAPO25XS

Multi-immersion objective

EVIDENT

GRA&GREEN Inc. Luncheon Seminar
Applying Plant Science Knowledge to Human Society—GRA&GREEN's Approach

Date Sun., March 16, 12:15–13:15 **Venue** Room A

Speakers: Takayuki Kondo (Lecturer, Future Crops Lab, Nagoya University)
Masaki Niwa (President, GRA&GREEN Inc.)

GRA&GREEN Inc. is an agri-bio startup creating the future of agriculture and food for the next generation, founded in April 2017 as a Nagoya University-originated startup and selected as a J-Startup CENTRAL in January 2021.

In order to swiftly respond to the ongoing global climate change and the diversifying needs of society, we are also utilizing advanced technologies such as gene editing technology to create innovative crop varieties. In addition to proprietary development, we are conducting joint development with a number of partner companies to create value through open innovation and to give back to society at large.

In addition, in October 2024, we established an industry-academia cooperative research laboratory (named "Future Crops Lab") at Nagoya University, and we are actively conducting joint research with researchers in academia, and will continue to promote the development of new crops and technologies through industry-academia collaboration.

In this luncheon seminar, we will introduce our past efforts and future prospects. We look forward to your participation if you are interested in co-creating value with us. Also, we hope that this seminar will serve as a case study for those who are interested in the social implementation of R&D results and university startups.

Website: https://www.gragreen.com/en

Seminar on Gender Equality
"Let's learn systems to support our life—toward ideal work-life balance—"

Date Sun., March 16, 12:15–13:15 **Venue** Room B

Organizer: JSPP Gender Equality Committee

Moderator: Keiko Sakakibara (Col. of Sci., Rikkyou Univ., Professor / JSPP Gender Equality Committee)

Speaker: Makiko Kakimoto (Grad. Sch. of Nat. Sci. and Tech., Kanazawa Univ., Associate professor/ Inst. for Promotion of Diversity and Inclusion, Kanazawa Univ.)

Panelists: Rie Inatsugi-Shimizu (Dept. of Evolutionary Biol. and Environmental Studies, Zurich Univ., Lecturer)
Michiko Sasabe (Fac. of Agr. and Life Sci., Hirosaki Univ., Associate professor /JSPP Gender Equality Committee)
Takahiro Hamada (Fac. of Life Sci., Okayama Univ. of Sci., Associate professor /JSPP Gender Equality Committee)

In the luncheon seminar this year, we invite Dr. Kakimoto in Institute for Promotion of Diversity and Inclusion, Kanazawa University, to introduce the laws Child Care and Family Care Leave Act and Act on Advancement of Measures to Support Raising Next-Generation Children, which were revised in May 2024, as well as the actual efforts for work-life balance at Kanazawa University. In addition, we will share the information about support systems available to us, such as the buyout system and the set-up of child-care rooms by KAKENHI, and examples of shorter working hours overseas. For those who are struggling to achieve work-life balance, seeking the information for the future, or involved in designing support systems, please join us to learn about the support system, to find out new ideas for your better life.

The 27th Organelle Workshop / Grant-in-Aid for Transformative Research Areas (A) Cytoplasmic Genome Regulation JOINT SYMPOSIUM

Date Thu., March 13, 13:00–18:50 **Venue** The Kanazawa Chamber Of Commerce & Industry

Organizers: Shin-ichi Arimura (The Univ of Tokyo), Yuhei Araiso (Kanazawa Univ.), Yoko Itoh (Ochanomizu Univ), Yusuke Kato (Setsunan Univ), Yoshiki Nishimura (Waseda Univ), Keiji Numata (Kyoto Univ), Atsushi Takabayashi (Hokkaido Univ)

Organelles play a vital role in plant development, function, and environmental adaptation. This organelle Workshop, held in conjunction with the Transformative Research Project "Cytoplasmic Genome Regulation," will serve as an international symposium featuring invited speakers from abroad. It aims to provide an opportunity for exchanging the latest insights and related technologies on plant organelles. A mixer is also planned, and we warmly invite you to join us. The workshop is free and open to everyone; however, prior registration through the webpage is strongly encouraged.

Web page: https://sites.google.com/view/plant-organelle-workshop

Web Page

13:00 Opening remark

Session 1 (13:05–14:50)

13:05 How to make a chloroplast:
RR-MYB-related transcription factors are master regulators of chloroplast biogenesis
Eftychios Frangedakis[1,2] ([1] Univ of Cambridge, [2] Rikkyo Univ)

13:40 Structure and dynamics of molecular machineries regulating mitochondrial morphology
Yuhei Araiso (Kanazawa Univ)

14:15 Boosting Photosynthesis via Improvement of Rubisco and Rubisco Activase
Wataru Yamori (The Univ of Tokyo)

14:50 Break

Session 2 (15:00–16:10)

15:00 Development of mitochondria-targeted nano capsule to transport genome editing devices
Yuma Yamada (Hokkaido Univ)

15:35 Organelle-targeted Delivery of Multiple Cargoes within Plants Using Carbon Nanomaterials
Simon Law[1], Keiji Numata[1,2] ([1]RIKEN, [2]Kyoto Univ)

16:10 Break

Session 3 (16:20–17:30)

16:20 Plant Organellar Genome Editing Technologies and
Grant-in-Aid for Transformative Research Area A, "Cytoplasmic Genome Regulation"
Shin-ichi Arimura (The Univ of Tokyo)

16:55 Organellar DNA editing in human cells, animals, and plants
Jin-Soo Kim (National Univ of Singapore)

17:30 Break

Keynote lecture

17:45 Chloroplast Genome Engineering: History and the Road Ahead
Pal Maliga (Rutgers Univ)

18:45 Closing remark

3rd Workshop on Plant Hormone Analysis

Date Thu., March 13, 13:30–15:55 **Venue** Room B

Organizers: Masashi Asahina (Teikyo University), Izumi Mori (Okayama University)

This workshop provides a guidance of plant hormone analysis for beginners and exchanges the latest research outcome using plant hormone analysis.

13:30 Open remarks
Masashi Asahina[1,2] ([1]Dept Biosc., Teikyo Univ., [2]Adv. Instrum. Anal. Ctr, Teikyo Univ.)

13:35 For those interested in plant hormone analysis - Quantitative plant hormone analysis at Adv. Instrum. Anal.Ctr, Teikyo Univ.
Emi Yumoto (Adv. Instrum. Anal.Ctr, Teikyo Univ.)

13:45 Introduction to the Phytohormone Analysis Platform at RIKEN CSRS
Mikiko Kojima[1], Yumiko Takebayashi[1], Hitoshi Sakakibara[2] ([1]RIKEN CSRS, [2]Grad. Sch. BioagriSci., Nagoya Univ.)

13:55 Quantification of IAA from small maize coleoptile tissues by using nano-LC/MS and LMD
Hiromi Suzuki[1,2], Yumiko Takebayashi[2], Mitsunori Seo[2,3] ([1]Sch Biosci Biotechnol, Tokyo Univ Technology, [2]RIKEN, CSRS, [3]Tropical Biosphere Res Center, Univ Ryukyus)

14:15 Introduction to hormone analysis for beginners - how we do at Okayama Univiersity
Takakazu Matsuura (IPSR, Okayama Univ.)

14:25 Insights from phytohormone measurements in non-hormonal research
Hiroshi Takagi[1,2], Takato Imaizumi[1] ([1]Dept. Biol., Univ. Washington, [2]Centr. Gene Res., Nagoya Univ.)

14:45 Wound response and anesthesia in plants
Moca Iwabuchi [1], Masashi Asahina[1,2,3] ([1]Grad. Sch. Sci & Eng., Teikyo Univ. [2]Dept Biosc., Teikyo Univ. [3]Adv. Instrum. Anal.Ctr, Teikyo Univ.)

15:05 Perception Mechanisms of Environmental Stimuli Mediated by Plant Hormones
Mika Nomoto[1,2,3], Yasuomi Tada[1,2] ([1]Centr. Gene Res., Nagoya Univ., [2]Grad. Sch. Sci., Nagoya Univ., [3]PRESTO, JST)

15:25 Toward clarifying the relationship between the accumulation of plasmodesmata callose and auxin transport/ responsiveness.
Yusuke Ohba (Dept Biosc., Teikyo Univ.)

15:45 Closing remarks
Izumi Mori (IPSR, Okayama Univ.)

The 42nd Meeting of the Japanese Society for Young Plant Physiologists

Date Thu., March 13, 15:30–18:00 **Venue** Room Z (hybrid)

Organizers: Minako Isoda (Pref. Univ. of Hiroshima), Takehiro Ito (Tokyo Univ. Agr. & Technol.), Airi Oh (Nagoya Univ.), Ryo Tachibana (Kyoto Univ.), Tatsuyoshi Nakanishi (Nara Inst. Sci. & Technol.)

The Japanese Society for Young Plant Physiologists has supported the development of students and young researchers for over 40 years. This year's meeting, "Learning from Diverse Careers: My Path Forward," features four speakers with unique experiences, including international research, transitions between academia and industry, and founding university-based ventures. We hope their talks inspire your career exploration.

15:30	Be ready to grab a chance at any time! Satoshi Ogawa (Institute for Chemical Research, Kyoto University)
16:00	Connect the Dots Hitomi Katogi (United Graduate School of Agricultural Science, Tokyo University of Agriculture and Technology)
16:30	Break
16:40	How I Ended Up Working at a Startup in Shibuya Rin Asaoka (Acaric Co., Ltd.)
17:10	Basic research isn't just useful—it's a driver of profit and innovation Takashi Osanai (School of Agriculture, Meiji University, Cyanology Co. Ltd.)
17:40	Closing remarks
18:00	Closing

※An on-site social gathering is planned following the seminar. If you would like to participate, please check the information on the website and social media accounts of the Japanese Society for Young Plant Physiologists and register in advance.

21st Japan plasmodesmata meeting

Date Fri., March 14, 18:30–20:30 **Venue** Room D

Organizers: Yusuke Ohba (Teikyo University), Michitaka Notaguchi (Kyoto University)

Plasmodesmata are microscopic channels that connect adjacent plant cells and are thought to be sites for the translocation of proteins, RNA, plant hormones, etc. Twice a year, this workshop has held a study session to discuss topics presented by speakers involved in research related to plasmodesmata. This time, we would like to ask Prof. Kenichi Nonomura (National Institute of Genetics) to be our speaker and hold a discussion. No registration is required, but please be advised that you will be asked to sign a confidentiality agreement on the day of the meeting. The presentations will be given in Japanese.

Chair: Yusuke Ohba

18:30	Opening remarks
18:35	Intercellular communication and meiotic cell cycle control in the anther
19:15	Discussion
19:55	Closing Remarks

Plant Science Presentation Workshop 2025
"Let's Speak, Communicate, and Connect in English!"

Date Fri., March 14, 19:00–20:30 (Reception: 18:30–) **Venue** Room B

Lecturer: Aska Takeuchi (Alba Edu Inc.)

Organizers: Chihiro Furumizu (Hiroshima Univ.) / Yasunori Ichihashi (RIKEN) / Tomoyuki Furuya (Osaka Univ.)

Summary:

Opportunities to speak English in research presentations and classes are increasing, and the scope of communication is expanding.

In this workshop, you will learn tips for communicating in English in a variety of presentation settings. The program will cover the differences between Japanese and English dialogue techniques, tips for preparing presentations, vocal and pronunciation training, and much more. Join us and learn from a professional presentation educator.

We also hope that this workshop will inspire new exchanges and research collaboration!

19:00	Opening remarks and self-introduction
	Ice breaker
19:11	1. Why speaking skills? What's the goal?
	2. Why we feel uncomfortable speaking in public?
	3. Three steps: Think, Communicate, and Show
	4. How to appeal more to your audience
20:02	Hearing sessions
20:22	Flash presentations
20:27	Closing remarks

This workshop is free and open to all. If possible, please register in advance using the form below. Registration may close early due to the limited number of participants.

Registration form (in Japanese): https://forms.gle/VtdkPTye5Doqfuej6

Closing date for pre-registration and bento meal arrangements: Sun., March 2

Registration

Contact: Chihiro Furumizu (chihiro-furumizu@hiroshima-u.ac.jp)

General Presentations

Program of Oral Presentations

- Each presentation is allotted a 15-min slot, a talk for 12 min and discussion for 2 min 30 s, followed by a 30 s interval before the next speaker. To keep the session on schedule, please strictly follow the time limits.

- The Presenter View, a display mode that allows presenters to see notes and upcoming slides, can often cause screen-sharing failures. Please avoid using it whenever possible.

For online presenters

- Connection test is not offered in this meeting.

- When your turn comes, please show your slides by sharing the screen and turn on the microphone and video in the Zoom webinar.

For chairpersons

- Please select a set of oral presentations for which a chairperson will be responsible by consulting with the other chairpersons of the assigned session beforehand.

- Chairpersons are listed at the end of Program of Oral Presentations.

● Day 1, Fri., March 14, AM (9:30–12:30)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Organelles/Cytoskeleton	Genome function/gene regulation
09:30	1aA01 E Structure of a photosystem II - FCPII supercomplex from haptophyte reveals a new antenna organization Romain La Rocca, Koji Kato, Pi-Cheng Tsai, Yoshiki Nakajima, Fusamichi Akita, Jian-Ren Shen (Okayama University)	1aB01 Characterization of peptide hormone RGF in rootless plant *Marchantia polymorpha* Hidefumi Shinohara[1], Chihiro Furumizu[2], Aki Iwashima[1], Nanami Matsuda[1], Taisuke Kanemaki[1], Yusei Imai[3], Ryuichi Nishihama[3], Shinichiro Sawa[4] ([1]Dept. Biosci. Biotech., Fukui Prefectural University, [2]N-BARD, Hiroshima University, [3]Dept. Applied Biol. Sci., Tokyo University of Science, [4]IRCAEB, Kumamoto University)	1aC01 Analysis of Actin Polymerization Promoting Factors Regulating Secondary Cell Wall Patterns in Xylem Vessel Yuichiro Kikushima[1], Saku Kijima[2], Takema Sasaki[1], Yoshihisa Oda[1] ([1]Dep. Biol. Sci., Sch. Sci, Nagoya Univ., [2]Bioproduct. Res. Inst., AIST)	1aD01 E A genome assembly for tobacco BY-2 cells: chaos and stability Tobias Baskin[1], Kirk R. Amundson[1], Isabelle M. Henry[2], Luca Comai[2] ([1]Biology Department, University of Massachusetts, Amherst, MA, USA, [2]UC Davis Genome Center and Dept Plant Biology, UC Davis, California USA)
09:45	1aA02 E New Energy transfer pathway between Lhca8 and PsaJ in a green algal photosystem I-LHCI supercomplex revealed by its atomic structural analysis Pi-Cheng Tsai, Koji Kato, Jian-Ren Shen, Fusamichi Akita (RIIS, Univ. Okayama)	1aB02 E TPD1 Peptide Signaling Regulates Thallus Development in the Liverwort *Marchantia polymorpha* Chihiro Furumizu[1], Hidefumi Shinohara[2], Mio Sasaki[3], Shinichiro Sawa[4] ([1]N-BARD, Hiroshima Univ., [2]Dept. Biosci. Biotech., Fukui Pref. Univ., [3]Sch. Eng., Hiroshima Univ., [4]Shinichiro Sawa)	1aC02 Live-Cell Imaging of Full-Length Myosin XI by Transient Expression in Tobacco Leaves Jun Obara[1], Motoki Tominaga[1,2] ([1]Grad. Sch., Adv. Sci. Eng., Waseda Univ., [2]Fac. Educ. Integrated Arts. Sci., Bio., Waseda Univ.)	1aD02 Comparative genomics uncover an evolutionary landscape of *Sesamum* spp. Hiroyuki Tanaka[1], Eiichiro Ono[2], Tenta Segawa[2], Jun Murata[3], Hiroki Takagi[4], Yuto Uegaki[5], Hiromi Toyonaga[3], Akira Shiraishi[3], Motoshige Takagi[6], Atsushi Toyoda[7], Kyoko Sato[8], Tatsuya Wakasugi[8], Manabu Horikawa[3], Makoto Kawase[9], Takehiko Itoh[1], Masayuki Yamamoto[8] ([1]Science Tokyo, Life Sci. and Tech., [2]Res. Inst. Suntory Global Innovation Center Ltd. (SIC), [3]Suntory Fdn. Life Sci. (SUNBOR), [4]Fac. Biores. Env. Sci. Ishikawa Pref. Univ., [5]Grad. Sch. Sci. Eng., Univ. Toyama, [6]Suntory System and Technology Ltd. (SST), [7]National Institute of Genetics, [8]Fac. Sci. Acad. Assem., Univ. Toyama, [9]Dep. Agr., Tokyo Univ. Agr.)
10:00	1aA03 Induction of far-red light absorbable LHC in the *Prasiola crispa* culture strain 4113 Makiko Kosugi, Yasuhiro Kamei, Jun Minagawa (National Institute for Basic Biology)	1aB03 [Cancelled]	1aC03 Functional Analysis of Myosin XI in *Marchantia polymorpha* Using Phenotypic and Live-Cell Imaging Approaches Shuya Uchida[1], Takehiko Kanazawa[2,3], Jun Obara[1], Takashi Ueda[2,3], Motoki Tominaga[1,4] ([1]Grad. Sch., Adv. Sci., Waseda Univ., [2]Div. Cellular Dynamics, NIBB, [3]Grad. Inst. for Advanced Studies, SOKENDAI, [4]Fac. Educ. Integrated Arts. Sci., Bio., Waseda Univ.)	1aD03 Genome sequence and identification of X-A balance sex determining factors in hops (the genus *Humulus*) Tenta Segawa[1], Takashi Akagi[2,3], Rika Uchida[2], Hiroyuki Tanaka[4], Kenta Shirasawa[5], Noriko Yamagi[6], Hajime Yaegashi[6], Satoshi Natsume[7], Hiroki Takagi[7], Akira Abe[7], Miki Okuno[4], Atsushi Toyoda[8], Kyoko Sato[9], Yuka Honniden[2], Cheng Zhang[2], Koichiro Ushijima[2], Josef Patzak[10], Lucie Horáková[11], Václav Bačovský[11], Roman Hobza[11], Deborah Charlesworth[12], Takehiko Itoh[4], Eiichiro Ono[1] ([1]Res. inst. SIC Ltd., [2]Grad. Sch., Okayama Univ., [3]Nihon BioData Co., Ltd., [4]Inst. Sci. Tokyo, [5]Kazusa DNA Res. Inst., [6]Iwate Univ., [7]Iwate Bio. Res. Cen., [8]Natl. Inst. of Genetics, [9]Toyama Univ., [10]Czech Hop Res. Inst., [11]Inst. Biophysics, Czech Acad. Sci., [12]Univ. Edinburgh)
10:15	1aA04 The role of state transitions in adapting to changes in light intensity and color in marine environments Masato Kubota[1,2], Eunchul Kim[1,2], Asako Ishii[1], Chiyo Noda[1], Jun Minagawa[1,2] ([1]National Institute for Basic Biology, [2]Graduate Institute for Advanced Studies, SOKENDAI)	1aB04 Evolutionary conserved RLF, a plant cytochrome b_5-like heme-binding protein, is essential for proper organ development in *Marchantia polymorpha* Kentaro P. Iwata[1], Takayuki Shimizu[2,3], Yuuki Sakai[1], Tomoyuki Furuya[1,4,5], Hinatamaru Fukumura[1], Yuki Kondo[1,5], Tatsuru Masuda[3], Kimitsune Ishizaki[1], Hidehiro Fukaki[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Fac. Sci., Nara Women's Univ., [3]Grad. Sch. of Arts and Sci., Univ. of Tokyo, [4]Col. of Life Sci., Ritsumeikan Univ., [5]Grad. Sch. of Sci., Osaka Univ.)	1aC04 Genome-wide identification of myosin genes and analysis of their intracellular functions in lycophytes *Selaginella moellendorffiii* Kohei Tachibana[1,2], Motoki Tominaga[1,2] ([1]Fac. Educ. Integrated Arts. Sci., Bio., Waseda Univ., [2]Grad. Sch., Adv. Sci. Eng., Waseda Univ.)	1aD04 Metabolic evolution of the specialized lignan through parasitism-mediated horizontal gene transfer Eiichiro Ono[1], Kohki Shimizu[2], Tenta Segawa[1], Jun Murata[3], Hiromi Toyonaga[3], Akira Shiraishi[3], Masaki Takagawa[4], Manabu Horikawa[3], Ryusuke Yokoyama[4], Atsushi Hoshino[5,6], Koh Aoki[2] ([1]Res. Inst. SIC Ltd., [2]Grad. Sch. Agric., Osaka Metro. Univ. (OMU), [3]Suntory Fdn. Life Sci. (SUNBOR), [4]Grad. Sch. Life Sci., Tohoku Univ., [5]NIBB, [6]SOKENDAI)
10:30	1aA05 E Physiological and molecular characterization of rice (*Oryza sativa*) mutants and landraces for cold tolerance Mahbuba Khatoon[1], Shahin Imran[2] ([1]Bangladesh Institute of Nuclear Agriculture, [2]Shahin IMRAN)	1aB05 HIRA-Mediated Regulation of Histone Marks Facilitates Efficient Regeneration in *Marchantia polymorpha* Tetsuya Hisanaga[1,2], Marco Schindler[2], Barbara Da Costa[2], Frederic Berger[2] ([1]NAIST, [2]GMI)	1aC05 A basic principle for organelle relocation in root hairs Toshiki Amari[1,4], Noriko Nagata[2], Motoki Tominaga[3], Hirotomo Takatsuka[1,5] ([1]School of Biological Science and Technology, College of Science and Engineering, Kanazawa University, Kakuma-machi, Kanazawa, Ishikawa 920-1192, Japan, [2]Faculty of Science, Japan Women's University, Bunkyo-ku, Tokyo 112-8681, Japan, [3]Faculty of Education and Integrated Arts and Sciences, Waseda University, 2-2 Wakamatsu- cho, Shinjuku-ku, Tokyo 162-8480, Japan., [4]HaKaSe+ for WISE, MEXT, [5]PRESTO, JST)	1aD05 Genome sequencing of *Polygala paniculata* that has lost its nitrogen-fixing ability Hideki Hirakawa[1], Kayo Hashimoto[2], Masayoshi Kawaguchi[2], Sachiko Isobe[3], Shusei Sato[4] ([1]Grad. Sch. Agr. Kyushu Univ., [2]Div. Symbiotic Systems, NIBB, [3]Grad. Sch. Agr. and Life Sci., Tokyo Univ., [4]Grad. Sch. Life Sci.)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/ Signaling molecules	Reproduction	Plant-organism interaction A				
1aE01 Starch Accumulation in Arabidopsis Roots under Zinc Deficiency Contributes to Osmotic Adjustment Ryuji Hayashi, Minoru Nagano, Yoichiro Fukao (Grad. Sch. Life Sci., Ritsumeikan Univ.)	1aF01 Tissue-specific biosynthesis of strigolactone in response to phosphate deficiency in *Marchantia paleacea* Akiyoshi Yoda[1], Kyoichi Kodama[1], Masaki Shimamura[2], Junko Kyozuka[1] ([1]Grad. Sch. of Life Sci., Tohoku Univ., [2]Grad. Sch. Integ. Sci. Life, Hiroshima Univ.)	1aG01 E Rice OsAGO4a contributes to the shaping of male meiotic DNA methylome Huong Ta[1], Manaki Mimura[2], Seijiro Ono[3], Hua Liu[4], Taiji Kawakatsu[5], Asuka Higo[6], Hiroyuki Tsuji[7], Atsushi Toyoda[8], Mutsuko Nakano[1], Ken-Ichi Nonomura[1,9] ([1]Plant Cytogenet., NIG, [2]Grad. Sch. Arg. Life Sci., Univ. Tokyo, [3]Hamburg Univ., [4]Zhejiang A&F Univ., [5]Inst. Crop Sci., NARO, [6]Ctr. Gene Res., Nagoya Univ., [7]Biosci. Biotech Ctr., Nagoya Univ., [8]Adv. Genom. Ctr., NIG, [9]SOKENDAI)	1aH01 The role of CAMTA transcription factor in immune system of the moss *Physcomitrium patens* Akino Setsu, Yoshifumi Kiyono, Teruaki Taji, Yoichi Sakata, Izumi Yotsui (Dept.of Biosci., Tokyo Univ. of Agri)	Symposium S01 Intercellular and Inter-organismal Communication (9:30–12:25)	Symposium S02 To be or not to be: intricate controls on developmental fate determination (9:30–12:30)	Symposium S03 New horizon of plant cell biology: novel insights into organization, dynamics, and functions of plant cell cortex (9:30–12:30)	09:30
1aE02 E Transcriptomic Analyses of *Lotus japonicus* Under Combined Low Phosphorus Supply and Elevated Ambient Temperature Lydia Ratna Bunthara[1], ZePeng Sheng[1], Hirotsuna Yamada[1], Jun Wasaki[1,2] ([1]Graduate School of Integrated Sciences for Life, Hiroshima University, Higashi-Hiroshima, Japan, [2]Seto Inland Sea Carbon Neutral Research Center, Hiroshima University, Higashi-Hiroshima, Japan)	1aF02 Diversification of SL perception mechanism in the parasitic plant Striga hermonthica Mayu Deguchi[1], Yap Jia Xin[2], Yuichiro Tsuchiya[1,2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]ITbM, Nagoya Univ.)	1aG02 Live imaging of pollen development Yoko Mizuta[1,2] ([1]WPI-ITbM, Nagoya Univ., [2]Inst. Adv. Res., Nagoya Univ.)	1aH02 Role of CCD (chitin-induced cell death) in the immune response of *Physcomitrium patens* Yoshifumi Kiyono, Takeru Ichihashi, Akino Setsu, Miyuri Yoshida, Teruaki Taji, Yoichi Sakata, Izumi Yotsui (Dept. Biosci., Tokyo Univ. of Agri.)				09:45
1aE03 Elucidation of the regulatory mechanism of iron deficiency responses by OsbHLH058, OsbHLH059 and OsIMA1 in the OsHRZ regulatory pathway Rintaro Fukatsu, Akari Ikeda, Takato Ihara, Akari Murota, Haruka Shinkawa, Takanori Kobayashi (Res. Inst. Biores. Biotech., Ishikawa Pref. Univ.)	1aF03 Functional analysis of strigolactone receptor D14 in *Fragaria vesca* Rino Yoshida[1], Tomoko Miyaji[2], Taiko To[1], Anzu Minami[3,4], Keiichi Mochida[3,4], Tadaomi Furuta[1], Satoshi Kidokoro[1], Keishi Osakabe[2], Yuriko Osakabe[1] ([1]School of Life Science and Technology, Institute of Science Tokyo, [2]Graduate School of Technology, Industrial and Social Sciences, Tokushima University, [3]RIKEN CSRS, [4]Kihara Institute for Biological Research, Yokohama City University)	1aG03 Analysis of PICALM2 in Arabidopsis pollen tubes Kazuo Ebine[1,2], Masaru Fujimoto[3], Keita Muro[4], Hidenori Takeuchi[5], Akira Nozawa[6], Anna Tode[7], Tomohiro Uemura[7], Tatsuya Sawasaki[6], Tetsuya Higashiyama[8], Takashi Ueda[1,2] ([1]Div. Cellular Dynamics, NIBB, [2]Grad. Inst. for Adv. Stud., SOKENDAI, [3]Grad. Sch. Agri. and Life Sci., The Univ. Tokyo, [4]Grad. Sch. Agri., Osaka Metropolitan Univ., [5]ITbM, Nagoya Univ., [6]Proteo-Science Center, Ehime Univ., [7]Grad. Sch. of Humanities and Sciences, Ochanomizu Univ., [8]Grad. Sch. Sci., The Univ. Tokyo)	1aH03 E Towards understanding the contribution of LRR-RLKs in immunity in the liverwort *Marchantia polymorpha* Yijia Yan[1], Yuki Hirakawa[2], Ana I. Caño Delgado[3], Hirofumi Nakagami[1] ([1]Max Planck Institute for Plant Breeding Research, [2]Hiroshima University, [3]Centre for Research in Agricultural Genomics (CRAG))				10:00
1aE04 The OsbHLH064 Transcription Factor Regulates Iron Homeostasis and Oxidative Stress in Rice Leaves Under Iron-Deficient Conditions Haruka Shinkawa[1], Taichi Shioya[1], Akari Murota[1], Atsushi Nagano[2,3], Takanori Kobayashi[1] ([1]Res. Inst. Biores. Biotech., Ishikawa Pref. Univ., [2]Facl. Agricul., Ryukoku Univ., [3]Inst. Adv. Biosci., Keio Univ.)	1aF04 *in vitro* Monitoring of Strigolactone-signaling Complex Formation by Time-resolved FRET Taiki Suzuki[1], Yusuke Kato[1], Tomoya Ishikawa[2], Chihiro Shinkai[2], Yoshiya Seto[2], Kotaro Nishiyama[2] ([1]Grad. Sch. Agri., Meiji Univ., [2]Sch. Agri., Meiji Univ.)	1aG04 E A novel *Arabidopsis thaliana* protein, POTI, plays an important role in maintaining integrity of pollen tubes Natalia Rzepecka[1], Yoko Ito[3], Emi Ito[4], Tomohiro Uemura[2] ([1]Faculty of Core Research, Ochanomizu Univ., [2]Graduate School of Humanities and Sciences, Ochanomizu Univ., [3]Institute for Human Life Sciences, Ochanomizu Univ., [4]JSPS Research Fellow, Ochanomizu Univ.)	1aH04 Dual functional receptors enhance plant immunity and nutrient acquisition in plant adaptation to phosphate deficiency Natsuki Tsuchida[1], Kota Yamashita[2], Taishi Umezawa[2], Yusuke Saijo[1] ([1]Grad. Sch. Sci and Tech., NAIST, [2]BASE, Tokyo Univ. Agric. Tech.)				10:15
1aE05 E Role of NITRATE TRANSPORTER 1.5 in auxin transport in *Arabidopsis* roots Rubaet Sharmin Ema[1], Hayato Shinonaga[1], Naoki Takahashi[2], Masaaki Umeda[1] ([1]Grad. Sch. Sci. & Tech., NAIST, [2]Dept. Life Sci., Sch. Agri., Meiji Univ.)	1aF05 Dissecting Interactions Between Rice KL-signaling Components and Transcriptional Responses Triggered by KL Mimics Keita Tanaka, Jiawang Wu, Hiromu Kameoka (CAS CEMPS)	1aG05 Functional analysis of *Physcomitrium patens* RKD transcription factor in gametogenesis by an inducible functional regulation system Nobuhiro Akiyoshi, Emiko Yoro, Keiko Sakakibara (Dept. Life Sci., Rikkyo Univ.)	1aH05 E A conserved trehalase-derived MAMP is recognized via Lectin receptor kinases in Arabidopsis Erika Iino[1,2], Yasuhiro Kadota[1], Noriko Maki[1], Erika Ono[1], Kazuki Sato[1], Bruno Pok Man Ngou[1], Marc W Schmid[3], Nobuaki Ishihama[1], Takamasa Suzuki[4], Taketo Uehara[5], Ken Shirasu[1,2] ([1]RIKEN CSRS, [2]Graduate school of Science, The University of Tokyo, [3]MW Schmid GmbH, [4]Chubu University, [5]National Agriculture and Food Research Organization)				10:30

E=Presentation in English

● Day 1, Fri., March 14, AM (9:30–12:30)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Organelles/Cytoskeleton	Genome function/gene regulation
10:45	1aA06 LHC remodeling under specific light and CO_2 conditions in marine diatom *Chaetoceros gracilis* Midori Nakamura[1], Minoru Kumazawa[1], Ryo Nagao[2], Shoko Tsuji[1], Takehiro Suzuki[3], Noriko Ishikawa[1], Naoshi Dohmae[3], Seiji Akimoto[4], Kentaro Ifuku[1] ([1]Div. Appl. Life Sci., Grad. Sch. Agri., Kyoto Univ., [2]Dept. Appl. Life Sci., Fac. Agri., Shizuoka Univ., [3]Biomol. Char. Unit, RIKEN CSRS, [4]Grad. Sch. Sci., Kobe Univ.)	1aB06 R2R3-MYB transcription factors facilitate regeneration from decapitated explants in the liverwort *Marchantia polymorpha* Yukiko Yasui[1,2], Hirotaka Kato[1,3], Suzuha Tanaka[1], Hidehiro Fukaki[1], Tetsuro Mimura[1,4], Kimitsune Ishizaki[1] ([1]Grad. Sch. Sci. Kobe Univ., [2]Grad. Sch. Biostudies, Kyoto Univ., [3]Grad. Sch. Sci. Eng., Ehime Univ., [4]Fac Bioenviron Sci, KUAS.)	1aC06 Acquisition and diversification of light-dependent nuclear relocation in land plants Kosei Iwabuchi[1], Hiroki Yagi[2], Kenta C. Moriya[3], Aino Komatsu[4,8], Yuuki Sakai[5], Tomoo Shimada[6], Ryuichi Nishihama[7], Takayuki Kohchi[8], Akiko Harada[1], Yo-hei Watanabe[2], Haruko Ueda[2], Ikuko Hara-Nishimura[2] ([1]Fac. Med., Osaka Med. Pharm. Univ., [2]Fac. Sci. Eng., Konan Univ., [3]CER, Kyoto Univ., [4]Grad. Sch. Life Sci., Tohoku Univ., [5]Grad. Sch. Sci., Kobe Univ., [6]Grad. Sch. Sci., Kyoto Univ., [7]Fac. Sci. Technol., Tokyo Univ. Sci., [8]Grad. Sch. Biostudies, Kyoto Univ.)	1aD06 Analysis of Nucleic Acid Binding Activity of CSP Involved in the Growth Regulation of *Breviolum minutum* Rei Tanaka[1], Kota Higashi[2], Shizue Yoshihara[1,2] ([1]Grad. Sch. Sci., Osaka Metro. Univ., [2]Dept. Sci., Osaka Metro. Univ.)
11:00	1aA07 Integration of photoprotection and high-light acclimation through Lhcx proteins in the diatom *Chaetoceros gracilis* Minoru Kumazawa[1], Seiji Akimoto[2], Atsushi Takabayashi[3], Shoko Tsuji[1], Hazuki Hasegawa[4], Atsushi Sakurai[4], Sousuke Imamura[4], Noriko Ishikawa[1], Natsuko Inoue-Kashino[5], Yasuhiro Kashino[5], Kentaro Ifuku[1] ([1]Grad. Sch. Agri., Kyoto Univ., [2]Grad. Sch. Sci., Kobe Univ., [3]Low Temp. Inst., Hokkaido Univ., [4]Space Env. Energy Labs., NTT, [5]Grad. Sch. Sci., Univ. Hyogo)	1aB07 An R2R3-MYB transcription factor, SHOT GLASS promotes gemma cup development and FR-induced gametangiophore formation in the liverwort *Marchantia polymorpha* Yuuki Sakai[1], Hideyuki Takami[1], Shohei Yamaoka[2], Hirotaka Kato[1,3], Tetsuro Mimura[1,4], Hidehiro Fukaki[1], Kimitsune Ishizaki[1] ([1]Grad. Sch. Sci. Kobe Univ., [2]Grad. Sch. Biostudies, Kyoto Univ., [3]Grad. Sch. Sci. Eng., Ehime Univ., [4]Fac Bioenviron Sci, KUAS.)	1aC07 Involvement of membrane traffic-related proteins in vacuolar transport of chloroplasts by chlorophagy Sakuya Nakamura[1], Kazuo Ebine[2,3], Tomohiro Uemura[4,5], Takashi Ueda[2,3], Shinya Hagihara[1], Masanori Izumi[1] ([1]CSRS, RIKEN, [2]Div. Cellular Dynamics, NIBB, [3]Grad. Inst. for Adv. Stud., SOKENDAI, [4]Grad. Sch. Humanities and Sciences, Ochanomizu Univ., [5]Faculty of Core Research, Ochanomizu Univ.)	1aD07 E The splicing factor RBP45d regulates thermomorphogenesis in Arabidopsis Shih-Long Tu (Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan)
11:15	1aA08 E Physiological function and assembly of the large PSI-LHCI supercomplex in the diatom *Chaetoceros gracilis* Jian Xing[1], Minoru Kumazawa[1], Seiji Akimoto[2], Shoko Tsuji[1], Noriko Ishikawa[1], Kentaro Ifuku[1] ([1]Grad. Sch. Agri., Univ. Kyoto, [2]Grad. Sch. Sci., Univ. Kobe)	1aB08 How ROS Drives Growth and Development in *Marchantia polymorpha*: Implications for Nonthermal Plasma Technology Applications Yuto Yamashita[1], Shoko Tsuboyama[1], Takafumi Hashimoto[1], Kenshiro Watanabe[1], Kanon Kitamura[1], Takamasa Okumura[2], Kazunori Koga[2], Masaharu Shiratani[2], Kazuyuki Kuchitsu[1] ([1]Dept. Appl. Biol. Sci., Tokyo Univ. of Science, [2]Fac. Inform. Sci. & Electr. Eng., Kyushu Univ)	1aC08 Autophagy is induced during plant grafting for wound healing Ken-ichi Kurotani[1], Daiki Shinozaki[2,3], Ryo Tabata[4], Yaichi Kawakatsu[1], Ryohei Sugita[5,6], Kentaro Okada[1], Yuki Utsugi[2], Koji Okayasu[4], Moe Mori[4], Keitaro Tanoi[3], Kiminori Toyooka[7], Kohki Yoshimoto[2], Michitaka Notaguchi[1,4,8,9] ([1]Biosci. and Biotec. center, Nagoya Univ., [2]Dep. Life Sci, Sch. Agri., Meiji Univ., [3]Org. Strategic Coordination of Research and Intellectual Properties, Meiji Univ., [4]Grad. Sch. Bioagri., Nagoya Univ., [5]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [6]Isotope Fac. Agri. Edu. and Research, Nagoya Univ., [7]CSRS, Riken, [8]Inst. Trans. Bio-Molecules, Nagoya Univ., [9]Dep. Botany, Gra. Sch. Sci., Kyoto Univ.)	1aD08 Isolation and analysis of suppressors of the Arabidopsis *drol1* mutant Takamasa Suzuki[1], Tomoko Niwa[2,3] ([1]Col. Biosci. Biotech., Chubu Univ., [2]Sch. Agri., Meiji Univ., [3]OSRI, Meiji Univ.)
11:30	1aA09 Structural analysis of photosystem II interacting with chlorophyll-binding protein (CBP) from *Acaryochloris marina* at 2.4 Å resolution Keisuke Kawakami[1], Saori Maki-Yonekura[1], Kyoko Shinzawa-Itoh[2], Natsuko Inoue-Kashino[2], Shigeru Itoh[3], Kentaro Ifuku[4], Koji Yonekura[1,5], Yasuhiro Kashino[2] ([1]RIKEN SPring-8 Center, [2]Graduate School of Science, University of Hyogo, [3]Graduate School of Science, Nagoya University, [4]Graduate School of Agriculture, Kyoto University, [5]Institute of Multidisciplinary Research for Advanced Materials, Tohoku University)	1aB09 Single-nucleus RNA-seq analysis to identify cell populations and predict the molecular basis of meristems in *Monophyllaea glabra* Shunji Nakamura, Hiroyuki Koga, Hirokazu Tsukaya (Grad. Sch. Sci., Univ. Tokyo)	1aC09 The Analysis of the Mechanism of Early Senescence of Autophagy-Defective Mutant in *Phsycomitirium Patens* Yuko Inoue-Aono[1], Yuji Moriyasu[2], Kohki Yoshimoto[3] ([1]Organization for the Strategic Coordination of Research and Intellectual Properties, Meiji univ., [2]Grad. Science and Engineering, Saitama univ., [3]Sch. Agriculture, Meiji univ.)	1aD09 Analysis of AGS2 RNA Helicase Reveals a Novel Physiological Role of Post-transcriptional Regulation of Mitochondrial mRNA Haruko Kaita[1,2], Akihito Mamiya[3], June-Sik Kim[2,4], Munetaka Sugiyama[5], Keiichi Mochida[4,6,7], Takashi Hirayama[1,2] ([1]Grad. Sch. Env. Life. Nat. Sci. & Tech., Okayama Univ., [2]IPSR, Okayama Univ., [3]Grad. Sch. Sci., Kobe Univ., [4]CSRS, RIKEN, [5]Grad. Sch. Sci., Univ. Tokyo, [6]KIBR, Yokohama City Univ., [7]Sch. Info. & Data Sci., Nagasaki Univ.)
11:45	1aA10 Structural and functional diversity of green algal LHCII reveals the function of each pigment in the complex Soichiro Seki[1,2], Nami Yamano[3,4], Andrew Gall[5], Bruno Robert[5], Eunchul Kim[6], Jun Minagawa[6], Tomoko Miyata[7,8], Fumiaki Makino[7,8], Hideaki Tanaka[1], Keiichi Namba[7,8], Genji Kurisu[1,8,9], Ritsuko Fujii[2,10,11] ([1]IPR, Osaka Univ., [2]Grad. Sch. Sci., Osaka City Univ., [3]Fac. Sci., Fukuoka Univ., [4]Dept. Chem., Renmin University of China, China, [5]Institute for Integrative Biology of the Cell (I2BC), Université Paris-Saclay, France, [6]National Institute for Basic Biology, [7]Grad. Sch. Front. Biosci., Osaka Univ., [8]JEOL YOKOGUSHI Research Alliance Laboratories, [9]Institute for Open and Transdisciplinary Research Initiatives, Osaka Univ., [10]Grad. Sch. Sci., Osaka Metropol. Univ., [11]ReCAP, Osaka Metropol. Univ.)	1aB10 Exploring conserved developmental mechanism of leaf in angiosperms using *Amborella trichopoda* transcriptome data Hokuto Nakayama[1], Shunji Nakamura[1], Kazune Ezaki[2], Hirokazu Tsukaya[1] ([1]Grad. Sch. Sci., UTokyo, [2]College of Sci. Rikkyo Univ.)	1aC10 Quantitative mitochondrial proteomics of thermogenic male cones from the gymnosperm cycad, *Cycas revoluta* Fumika Matsuoka[1], Mitsuhiko Sato[2], Takehito Inaba[1], Yasuko Ito-Inaba[1,3] ([1]Fac. Agr. Univ. Miyazaki, [2]Kazusa DNA Res. Inst., [3]Grad. Sch. Life Sci., Tohoku Univ.)	1aD10 A feedback mechanism of polyamine biosynthesis via translational regulation by non-AUG-initiated upstream ORFs and an RNA secondary structure in Arabidopsis Yuta Hiragori[1], Miharu Yasumuro[2], Taihei Kirino[1], Atsushi Kaido[1], Yasuko Sakihama[1], Yuya Goto[1], Yui Yamashita[1], Satoshi Naito[1], Hitoshi Onouchi[1] ([1]Grad. Sch. Agr., Hokkaido Univ., [2]Sch. Agr. Hokkaido Univ.)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/ Signaling molecules	Reproduction	Plant-organism interaction A				
1aE06 How do plants know too much water?: Low nitrate under waterlogging acts as an early trigger of anatomical adaptation to acclimate in rice roots Katsuhiro Shiono, Masato Ejiri, Yuto Sawazaki, Yuka Egishi, Tomonori Tsunoda (Grad. Schl. Biosci. Biotech., Fukui Pref. Univ.)	1aF06 Functional analysis of KL signaling in *Ceratopteris richardii* Ayano Fujimura[1], Yuki Hata[1], Xiaonan Xie[2], Yoshiya Seto[3], Junko Kyozuka[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]Ctr. Biosci. Res. & Educ., Utsunomiya Univ., [3]Dept. Agr. Chem., Fac. Agr., Meiji Univ.)	1aG06 The *CpRWP7* gene, encoding a RWP-RK transcription factor, is required for acquisition of mating ability in the unicellular zygnematophycean alga *Closterium peracerosum–strigosum–littorale* complex Minami Yoshimura[1], Tomoaki Nishiyama[2], Hiroyuki Sekimoto[1] ([1]Grad. Sch. Sci., Japan Women's Univ., [2]Faculty of Science, Academic Assembly, Univ. Toyoma)	1aH06 The transcription factor PHR1 serves to restrict root fungal infection under phosphate deficiency in *Arabidopsis thaliana* Taiga Ishihara, Shigetaka Yasuda, Yusuke Saijo (Grad. Sch. Sci and Tech., NAIST)	Symposium S01 Intercellular and Inter-organismal Communication (9:30–12:25)	Symposium S02 To be or not to be: intricate controls on developmental fate determination (9:30–12:30)	Symposium S03 New horizon of plant cell biology: novel insights into organization, dynamics, and functions of plant cell cortex (9:30–12:30)	10:45
1aE07 Elucidation of the water tolerance mechanism through the formation of lysigenous aerenchyma in rice stems Keisuke Nagai, Kousuke Mori, Yusuke Tanimoto, Motoyuki Ashikari (Biosci. Biotech. Ctr., Nagoya Univ.)	1aF07 Ⓔ The Green algae *Closterium peracerosum-strigosum-littorale* complex exhibits conserved KL sensing and signaling pathways shared with land plants Hsiang-Ting Lee[1], Tomoaki Nishiyama[2,3], Junko Kawai[4], Keiko Sakakibara[4], Kotaro Nishiyama[5], Taiki Suzuki[5], Yoshiya Seto[5], Junko Kyozuka[1] ([1]Graduate School of Life Science, Tohoku University, [2]School of Science, Academic Assembly, University of Toyama, [3]Research Center for Experimental Modeling of Human Disease, Kanazawa University, [4]College of Science, Rikkyo University, [5]Graduate School of Agriculture, Meiji University)	1aG07 Comparative analysis of the type-B BZR/BES transcription factors as the regulators of sexual reproductive organ development Tomoyuki Furuya[1,2], Aoi Umekita[2], Aoi Iwasa[2], Shohei Nosaki[3,4], Koichi Sugimoto[3,4], Yuki Kondo[1], Masahiro Kasahara[2] ([1]Grad. Sch. Sci., Osaka Univ., [2]College Sch. Sci., Ritsumeikan Univ., [3]Inst. of Life and Env. Sci., Univ. of Tsukuba, [4]T-PIRC, Univ.of Tsukuba)	1aH07 Ⓔ Spatiotemporal dissection of humidity-triggered immunity in *Arabidopsis thaliana* Arullthevan Rajendram[1], Shigetaka Yasuda[1], Shioriko Ueda[1], Akihisa Shinozawa[2], Rahul Sk[2,3], Izumi Yotsui[2], Yusuke Saijo[1] ([1]Grad. Sch. Sci and Tech., NAIST, [2]Dep. Biosci., Tokyo Univ. Agric., [3]NGRC, Tokyo Univ. Agric.)				11:00
1aE08 Role of ABA in the early response to hypoxia in *Brassica napus* Akihisa Shinozawa[1], Nozomi Yokouchi[1], Hirokazu Takahashi[2], Mikio Nakazono[2], Kanna Izawa[1], Shin-ichi Nakamura[1] ([1]Dept. Bioscience, Tokyo Univ. Agric., [2]Grad. Sch. Bioagric. Sci., Univ. Nagoya)	1aF08 Ⓔ Negative feedback regulation of the KAI2-dependent signaling based on the duplication of KAI2 receptor in *Marchantia polymorpha* Aino Komatsu[1], Yohei Mizuno[1], Yoshiya Seto[2], Junko Kyozuka[1] ([1]Grad. sch., Life Sci., Tohoku Univ., [2]Sch. Agri., Meiji Univ.)	1aG08 Analysis of phasiRNA biogenesis pathway during spermatogenesis in the liverwort *Marchantia polymorpha* Sae Anada[1], Bing-Nan Shen[2], Zhao-Jun Pan[2], Chao-Tzu Chung[2], Kanta Kotani[1], Asuka Higo[1], Shohei Yamaoka[1], Keisuke Inoue[1,3], Shih-Shun Lin[2], Takashi Araki[1] ([1]Grad. Sch. Bio., Univ. Kyoto, [2]Inst. Biotech., Univ. National Taiwan, [3]CeLiSIS, Univ. Kyoto)	1aH08 Ⓔ Identification and Characterization of The Effector for The Paired NLRs Pit1 and Pit2 Alfino Sebastian[1], Motoki Shimizu[2], Nobuko Yasuda[3], Ryohei Terauchi[4], Fumi Fukada[1], Yoji Kawano[1] ([1]Institute of Plant Science and Resources, Okayama University, [2]Iwate Biotechnology Research Center, Japan, [3]National Agriculture and Food Research Organization, Japan, [4]Laboratory of Crop Evolution, Kyoto University, Japan)				11:15
1aE09 Diurnal change of isoprene emission rate in *Quercus* and *Populus* leaves in response to different light intensity Shoko Tsuji[1], Noboru Masui[2], Takafumi Miyama[3], Motonori Okumura[4], Satoru Takanashi[3], Akira Tani[2] ([1]Kyoto Univ., [2]Univ. of Shizuoka, [3]FFPRI, [4]RIEAFO)	1aF09 Ⓔ Biochemical function of the KAI2 receptor proteins in a liverwort, *Marchantia polymorpha* Yoshiya Seto[1,3], Haruka Fukuda[1], Michio Kuruma[1], Joseph Noel[3], Gordon Louie[3], Takuya Miyakawa[4], Zhangliang Zhu[4], Junko Kyozuka[2] ([1]School of Agriculture, Meiji University, [2]Graduate School of Life Science, Tohoku University, [3]The SALK institute for Biological Studies, [4]Graduate School of Biostudies)	1aG09 Profiling of spermatid-specific alternative splicing and searching for splicing regulators in *Marchantia polymorpha* Makoto Mashiba[1], Asuka Higo[1], Shohei Yamaoka[1], Keisuke Inoue[1,2], Takashi Araki[1] ([1]Grad. Sch. Bio., Kyoto Univ., [2]CeLiSIS, Kyoto Univ.)	1aH09 Ⓔ Transcriptional Landscape Of PRRs-RLCKs-TFs Involved In Rice Immunity Wanqing Wang, Fumi Fukada, Natsuko Ono, Tomoyuki Furuta, Hideki Nishimura, Yoji Kawano (Okayama Univ. Institute of Plant Science and Resources)				11:30
1aE10 Light Priming Alleviates Photooxidative Stress in Arabidopsis Mutants Deficient in Antioxidants Tadashi Sasaki[1], Takumi Iwagami[1], Akane Hamada[1], Jun'ichi Mano[2], Takanori Maruta[1] ([1]Grad. Sch. Nat. Sci. Technol., Shimane Univ., [2]Grad. Sch. Sci. & Technol. Innov., Yamaguchi Univ.)		1aG10 Analysis and establishment of a quantitative method for verifying spermatozoid movement patterns of *Marchantia polymorpha* Naoki Minamino, Takumi Higaki (Kumamoto Univ, FAST.)	1aH10 Analysis of The Mechanism of Giant Cell Development in Gall Formation of *Meloidogyne incognita* Nao Kamino[1,2], Airi Misaka[1], Reira Suzuki[2], Shinichiro Sawa[3] ([1]GSST, Univ. Kumamoto, [2]FAST, Univ. Kumamoto, [3]IRCAEB, Univ. Kumamoto)				11:45

Ⓔ=Presentation in English

● Day 1, Fri., March 14, AM (9:30–12:30)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Organelles/Cytoskeleton	Genome function/gene regulation
12:00	1aA11 Photosynthetic capacity and pigment distribution of a siphonous green alga, *Dichotomosiphon tuberosus* Soichiro Seki[2], Koichi Kobayashi[3], Ritsuko Fujii[1,3] ([1]ReCAP, Osaka Metropolitan Univ., [2]IPR, Osaka Univ., [3]Grad . Sch. Sci., Osaka Metropolitan Univ.)	1aB11 Morphogenesis of heart-shaped leaflets with concave apices in *Oxalis corniculata*: an integrated experimental and simulation study Zining Wang[1], Yasuhiro Inoue[2], Atsushi Mochizuki[3], Hirokazu Tsukaya[1] ([1]Grad. Sch. Sci., Univ. Tokyo, [2]Dept. Micro Eng., Kyoto Univ., [3]Inst. Front. Life Med. Sci., Kyoto Univ.)	1aC11 E Mitochondrial DNA and the 641kb nuclear-mitochondrial DNA in *Arabidopsis* can be separated by their CpG methylation levels Yuyang Zhong[1], Miki Okuno[2], Nobuhiro Tsutsumi[1], Shin-ichi Arimura[1] ([1]Grad. Sch. of Agri., Univ. Tokyo, [2]Kurume Univ. Sch. of Med.)	1aD11 Upstream ORF-mediated translational regulation in diel gene expression and clock gene *LHY* in Arabidopsis Haruka Aoyama[1], Toshihiro Arae[2], Yui Yamashita[3], Atsushi Toyoda[4], Satoshi Naito[3], Naoyuki Sotta[5], Yukako Chiba[1,6] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Grad. Sch. Front. Sci., Univ. Tokyo, [3]Grad. Sch. Agric., Hokkaido Univ., [4]Adv. Genomics Ctr., Natl. Inst. Genetics, [5]Grad. Sch. Agric., Dep. Agric. Biol., Osaka Metro.Univ., [6]Fac. Sci., Hokkaido Univ.)
12:15		1aB12 Large scale RNA-Seq Revealed the Effect of Growth Temperature on Anther Development Process in RiceLarge scale RNA-Seq Revealed the Effect of Growth Temperature on Anther Development Process in Rice Akiha Kagehira[1], Makiko Kawagishi-Kobayashi[2], Makoto Kashima[1] ([1]Department of Biomolecular Science, Faculty of Science, Toho University, [2]Institute of Agrobiological Sciences, NARO)	1aC12 Dysfunction of nucleus-cytoplasm relationship in alloplasmic rice-wheat hybrid and its restoration in rice-wheat cytoplasmic hybrid Takuma Watanabe, Rattanawong Kasidit, Yukinosuke Ohnishi, Aya Satoh, Takashi Okamoto (Dept. Biol., Tokyo Met. Univ.)	1aD12 Morphological features in tRNA wobbleU modification-deficient Arabidopsis mutants and its gene expression profile Yumi Nakai (OMPU Med. Biochem.)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/ Signaling molecules	Reproduction	Plant-organism interaction A				
1aE11 Chloroplast-targeted base editors generated herbicide metribuzin-resistant *Arabidopsis thaliana* Issei Nakazato[1], Wataru Yamori[1], Hiroyoshi Matsumura[2], Yuchen Qu[1], Miki Okuno[3], Nobuhiro Tsutsumi[1], Shin-ichi Arimura[1] ([1]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [2]Col. of Life Sci., Ritsumeikan Univ., [3]Sch. of Med., Kurume Univ.)		1aG11 Functional analysis of a gene encoding Voltage-gated Ion Channel of SPERm1, Mp*VICSPER1*, in sperm chemotaxis in *Marchantia polymorpha* Mizuki Morita[1], Noriyuki Suetsugu[2], Takayuki Kohchi[3], Taisuke Togawa[4], Katsuyuki Yamato[4] ([1]Grad. Sch. BOST., Kindai Univ., [2]Grad. Sch. Arts and Sciences., Univ. Tokyo, [3]Grad. Sch. Biostudies., Kyoto Univ., [4]Fac. BOST., Kindai Univ.)	1aH11 *Septoria gentianae* induces systemic-induced susceptibility to gentian plant Chika Tateda[1,2], Mari Iwai[3], Akihisa Shinozawa[4], Hiromasa Saitoh[5], Tetsuro Yamashita[1], Masahiro Nishihara[3,6], Koki Fujisaki[3], Katsunori Hatakeyama[1] ([1]Faculty of Agriculture, Iwate University, [2]JST PRESTO, [3]Department of Horticultural Science, Iwate Biotechnology Research Center, [4]Department of Molecular Microbiology, Tokyo University of Agriculture, [5]Department of Bioscience, Tokyo University of Agriculture, [6]Department of Bioscience and Biotechnology, Fukui Prefectural University)	Symposium S01 Intercellular and Inter-organismal Communication (9:30–12:25)	Symposium S02 To be or not to be: intricate controls on developmental fate determination (9:30–12:30)	Symposium S03 New horizon of plant cell biology: novel insights into organization, dynamics, and functions of plant cell cortex (9:30–12:30)	12:00
1aE12 Role of RNA Editing in COX2 of the Mitochondrial Electron Transport Chain Complex IV in Heavy Metal Tolerance Akiho Yamazaki[1], Koki Misawa[1], Riho Sawai[1], Fumiaki Asahi[1], Mizuki Takenaka[2], Issei Nakazato[3], Shin-ichi Arimura[3], Izumi Yotsui[1], Teruaki Taji[1], Yoichi Sakata[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Graduate School of Science, Kyoto University, [3]Graduate School of Agricultural and Life Sciences, The University of Tokyo)		1aG12 The GEX1 Ortholog of *Marchantia polymorpha* is a Nuclear Membrane Protein of Gametes Essential for Reproduction Kayano Toume[1], Sakura Eizuka[1], Yuki Tomita[2], Takashi Araki[2], Shohei Yamaoka[2], Naoki Minamino[3], Takashi Ueda[4,5], Shuh-ichi Nishikawa[6] ([1]Grad. Sch. Sci. and Tech., Niigata Univ., [2]Grad. Sch. Bio., Kyoto Univ., [3]Fac. Adv. Sci. and Tech., Kumamoto Univ., [4]NIBB, [5]SOKENDAI, [6]Fac. Sci., Niigata Univ.)	1aH12 Ⓔ Effector Signaling in Hypersensitive Cell Death of Plant: Single Molecule Signaling of Suppressor, ROS and HR by using f-MRI Naotaka Furuichi (American Association for the Advancement of Sciences)				12:15

Ⓔ=Presentation in English

● Day 1, Fri., March 14, PM (14:00–16:45)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Organelles/Cytoskeleton	Genome function/gene regulation
14:00	1pA01 Independent acquisition of the novel far-red light-harvesting antenna complexes in *Phaeophila dendroides* (Ulvales, Ulvophyceae) inhabiting the inside of coral skeletons Chieko Onami[1], Ryutaro Tokutsu[2], Keishiro Sano[3], Tohru Tsuchiya[1], Ryoma Kamikawa[3], Takashi Yoshida[3], Hideaki Miyashita[1] ([1]Grad. Sch. Hum. and Environ. Studs., Univ. Kyoto, [2]Grad. Sch. Sci., Univ. Kyoto, [3]Grad. Sch. Agr., Univ. Kyoto)	1pB01 E MAX2-depending signaling regulates developmental phase change through cytokinin in the moss *Physcomitrium patens* Junko Kyozuka[1], Yi Luo[1], Yuki Hata[1], Juri Ohtsuka[1], Aino Komatsu[1], Mikiko Kojima[2], Hitoshi Sakakibara[2,3] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]RIKEN CSRS, [3]Grad. Sch. Bioagricultural Sci., Nagoya Univ.)	1pC01 Role of mechanosensitive channel MSL2 in chloroplast Ca^{2+} response to high-temperature stress Honoka Takeuchi, Atsushi Tougaki, Chikako Tanaka, Kanako Yamasaki, Yudai Takenaka, Yoko Ishizaki, Takashi Shiina (Faculty of Agriculture, Setsunan Univercity)	1pD01 Multi-Sample Time-Series Transcriptome Reveals the Trajectories of the Process of Vascular Cell Transdifferentiation Tasuku Ito[1], Makoto Kashima[2], Yuki Kondo[1] ([1]Graduate School of Science, Osaka University, [2]Faculty of Science, Toho University)
14:15	1pA02 E Roles of Minor Red-Shifted Chlorophyll *a* in a Unicellular Green Alga *Neochloris* sp. Biwa 5-2 Fei Wang[1], Seiji Akimoto[2], Hideaki Miyashita[1] ([1]Graduate School of Human and Environmental Studies, Kyoto University, [2]Graduate School of Science, Kobe University)	1pB02 E snRNA-seq analysis of the moss *Physcomitrium patens* reveals a conserved cytokinin-ESR module promoting pluripotent stem cell identity Yuki Hata[1], Nicola Hetherington[2], Kai Battenberg[3], Atsuko Hirota[4], Aki Minoda[2], Makoto Hayashi[4], Junko Kyozuka[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]RIMLS, Radboud Univ., [3]Stillinger Herbarium, Univ. Idaho, [4]CSRS, RIKEN)	1pC02 DGDG is an essential glycolipid for functional chloroplasts in Arabidopsis guard cells Reona Okuma, Boseok Song, Tomoki Obata, Sakura Nishimura, Koh Iba, Juntaro Negi (Dept. of Biology, Kyushu Univ.)	1pD02 E AGO1b Regulates sRNA Loci, Methylation, and Gene Expression to Control Anther Development in Rice Zein Eddin Bader (RIKEN Center for Sustainable Resource Science (CSRS))
14:30	1pA03 Characterization of Functionally Unknown Phycobiliproteins in Cyanobacteria Risa Tamagawa, Shigeru Kawai, Yuu Hirose (Dept. Eng., Toyohashi Tech.)	1pB03 The mode of action of auxin transport and its function in moss *Physcomitrium patens* Kanta Suemitsu[1], Tomomichi Fujita[2], Satoshi Naramoto[2,3] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Faculty Sci. Hokkaido Univ., [3]PRESTO, JST)	1pC03 E Plastid Dynamics and Regulatory Mechanisms During Callus Formation Akira Iwase[1,2], Noriko Nagata[3], Sho Fujii[4], Arika Takebayashi[1], Hiroshi Hisano[5], Takashi Yaeno[6], Koichi Kobayashi[7], Keiko Sugimoto[1] ([1]RIKEN CSRS, [2]JST PRESTO, [3]Fac. Sci., Japan Women's U., [4]Fac. Agric. Life Sci., Hirosaki U., [5]IPSR, Okayama U., [6]Grad. Sch. Agric., Ehime U., [7]Grad. Sch. Sci., Osaka Metropolitan U.)	1pD03 Development Of DNA Methylation Editing Technology In Arabidopsis Shunya Hirata[1], Taisei Ozono[2], Kenshin Kawai[2], Yoko Ikeda[3], Kappei Kobayashi[4], Taisuke Nishimura[2], Hidetaka Kaya[4] ([1]UGAS, Ehime Univ., [2]Grad. Sch. Eng., Nagaoka Univ. Tech., [3]IPSR, Okayama Univ., [4]Grad. Sch. Agri., Ehime Univ.)
14:45	1pA04 Characterization of Chromatic Acclimation in the Model Cyanobacterium *Synechocystis* sp. PCC 6803 Mutsumi Kubushiro, Takuto Otsu, Toshihiko Eki, Yuu Hirose (Grad Sci. Eng., Toyohashi Tech.)	1pB04 Molecular understanding of the matrotrophic sporophyte development in *Physcomitrium patens* Emiko Yoro[1], Reika Isoda[2], Kensuke Kawade[3], Masayoshi Nakamura[2], Keiko Sakakibara[1] ([1]Life Sci., Rikkyo Univ., [2]WPI-ITbM, Nagoya Univ., [3]Sci & Eng., Saitama Univ.)	1pC04 A novel plastid protein, LIPID RICH 1, inhibits lipid accumulation in *Arabidopsis thaliana* Mebae Yamaguchi[1], Shuji Shigenobu[2], Katsushi Yamaguchi[2], Yasuhiro Higashi[3], Yozo Okazaki[4], Kazuki Saito[3], Emi Mishiro-Sato[5], Keiko Kano[5], Ryosuke Sugiyama[6], Mami Yamazaki[6], Shigeo S. Sugano[7], Shuichi Fukuyoshi[8], Haruko Ueda[9], Ikuko Hara-Nishimura[9], Takashi L. Shimada[1] ([1]Grad. Sch. Hort., Chiba Univ., [2]NIBB, [3]RIKEN, [4]Mie Univ., [5]Nagoya Univ., [6]Grad. Sch. Phar., Chiba Univ., [7]AIST, [8]Kanazawa Univ., [9]Konan Univ.)	1pD04 Epigenetic modification analysis using single-cell resolution 3D immunostaining for rice shoot apical meristem Yurika Morishita[1], Ryosuke Takata[2], Aya Yoshida[2], Asuka Higo[2], Hiroyuki Tsuji[1,3] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]KIBR, Yokohama City Univ., [3]BBC, Nagoya Univ.)
15:00	1pA05 Pathway of Uphill Light Harvesting in Chlorophyll-*f* binding Photosystem I Revealed by Single Molecule Fluorescence Anisotropy Study Rin Taniguchi[1], Toshiyuki Shinoda[2], Tatsuya Tomo[2], Shen Ye[1], Yutaka Shibata[1] ([1]Graduate School of Science, Tohoku University, [2]Faculty of Science, Tokyo University of Science)	1pB05 Functional analyses of TALE homeobox transcription factors KNOX and BELL in hornworts Kazune Ezaki, Keiko Sakakibara (College of Sci., Rikkyo Univ.)	1pC05 Roles of bZIP transcription factors in retrograde signaling of *Cyanidioschyzon merolae* Haruka Saito[1], Prerna Bora[2], Kan Tanaka[2], Toshihide Okajima[3], Mitsumasa Hanaoka[1,4,5] ([1]Grad. Sch. Horticul., Chiba Univ., [2]Lab. Chem. Life Sci., Inst. Sci. Tokyo, [3]SANKEN, Osaka Univ., [4]Plant Mol. Sch. Cent., Chiba Univ., [5]Res. Cent. Space Agr. Hort., Chiba Univ.)	1pD05 Analysis of novel transcriptional regulators which suppress ABA biosynthesis through osmotic-stress inducible liquid-liquid phase separation Hikaru Sato[1,2], Satoru Fujimoto[3], Miki Fujita[2], Fuminori Takahashi[2], Keiko Kuwata[4], Sachihiro Matsunaga[1], Kazuko Yamaguchi-Shinozaki[5,6], Kazuo Shinozaki[2] ([1]Dept. of Integr. Biosci., Univ. Tokyo, [2]RIKEN CSRS, [3]Dept. of Appl. Biol. Sci., Tokyo Univ. of Sci., [4]ITbM, Nagoya Univ., [5]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [6]Res. Inst. Agr. Life Sci., Tokyo Univ. Agr.)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Flowering/Clock	Plant hormones/ Signaling molecules	Biomembrane/ Ion and solute transport	Systems biology				
1pE01 E The effect of doming on the phyllotaxis during the phase transition in *Arabidopsis thaliana* Natsumi Yoshida, Takashi Okamoto, Atsuko Kinoshita (Tokyo Metropolitan Univ.)	1pF01 Metabolomics and subsequent snRNA-seq revealed that transient auxin regulating cotyledon tissue cell size in *Arabidopsis* is produced from indole-glucosinolates in the epidermis Hiromitsu Tabeta[1,2], June-Sik Kim[1], Hiroyuki Koga[3], Teruki Kameyama[2], Atsuko Hirota[1], Yushiro Fuji[1], Tetsuya Mori[1], Muneo Sato[1], Makoto Hayashi[1], Keiichi Mochida[1], Hirokazu Tsukaya[3], Ali Ferjani[2], Masami Hirai[1,4] ([1]RIKEN Center for Sustainable Resource Science, [2]Department of Biology, Tokyo Gakugei Univ, [3]Department of Biological Sciences, Graduate School of Science, The University of Tokyo, [4]Department of Applied Biosciences, Graduate School of Bioagricultural Sciences, Nagoya University)	1pG01 E Key Amino Acid Residues Governing CO_2 Permeability in Arabidopsis PIP2 Aquaporins Shaila Shermin Tania, Izumi C. Mori (Institute of Plant Science and Resources, Chuo 2-20-1, Kurashiki, 710-0046 Okayama, Japan)	1pH01 In-depth Investigation Of Focal Adhesion Kinase Inhibitor Effects In Arabidopsis Seedlings Using Chemical Transcriptomics And Pull-down Assay Hayoung Lee[1], Natsumi Mori-Moriyama[1], Takumi Higaki[2], Ayato Sato[3], Shuhei Kusano[4], Atsushi Nagano[1,5] ([1]Feculty of Agriculture, Ryukoku University, [2]Faculty of Advanced Science and Technology (FAST), Kumamoto University, [3]Institute of Transformative BioMolecules (WPI-ITbM), Nagoya University, [4]RIKEN Center for Sustainable Resource Science, [5]Institute for Advanced Biosciences (IAB), Keio University)	Symposium S04 Underground Chatter: The hidden but lively exchange at the root-soil interface (14:00–16:45)		Symposium S05 Toward Elucidating PHYTOCOSM: Multiscale Symbioses Between Photosynthetic and Heterotrophic Organisms on Earth (14:00–16:45)	14:00
1pE02 Analysis of the lateral root development regulated by circadian clock genes Sota Nomoto[1], Takumi Onakado[1], Kosuke Mase[1], Akari Maeda[2], Satomi Sakaoka[1], Atsushi Morikami[1], Takamasa Suzuki[3], Soichi Inagaki[4], Todd Michael[5], Norihito Nakamichi[2], Hironaka Tsukagoshi[1] ([1]Agr., Meijo Univ, [2]Grad Sch Bioagric Sci., Nagoya Univ, [3]Col. Biosci. Biothech., Chubu Univ, [4]Dept. of Biol. Sci., Grad. Sch. of Sci., Tokyo Univ, [5]Salk Institute)	1pF02 Efficient adventitious root organogenesis on shoot bases in peach (*Prunus persica* L.) Katsunori Tamura, Yosuke Fukamatsu, Kenji Oda (Research Institute for Biological Sciences, Okayama Prefectural Technology Center for Agriculture, Forestry, and Fisheries)	1pG02 Identification of protein kinases activating plasma membrane proton pump Shin-ichiro Inoue[1,2], Yukari Nagatoshi[3], Maki Hayashi[1], Masaki Okumura[1], Yasunari Fujita[3], Toshinori Kinoshita[1,4] ([1]Grad. Sch. Sci. Engr., Saitama Univ., [2]Grad. Sch. Sci., Nagoya Univ., [3]JIRCAS, [4]ITbM., Nagoya Univ.)	1pH02 E ATTED-II Version 12.0: A Plant Gene Coexpression Database for Comparative Analysis Across Flowering Plants Takeshi Obayashi[1,2] ([1]Grad. Sch. Info. Sci., Tohoku Univ., [2]WPI-AIMEC, Tohoku Univ.)				14:15
1pE03 Florigen Promotes Floral Transition and Stem Elongation in Temperate Cereals Jun Ito[1], Yuko Nomura[1], Kotaro Takahagi[2], June-Sik Kim[2,3], Makoto Kashima[4], Hiroshi Hisano[3], Nao Sato[1], Shinpei Yasukawa[1], Hirokazu Handa[5], Daisuke Saisho[3], Keiichi Mochida[2], Takashi Hirayama[3], Hiroyuki Tsuji[1,6] ([1]KIBR, Yokohama City Univ., [2]RIKEN CSRS, [3]IPSR, Okayama Univ., [4]Fac. Sci., Toho Univ., [5]Grad. Sch. Life. Environ. Sci., Kyoto Pref. Univ., [6]Biosci. Biotech. Ctr., Nagoya Univ.)	1pF03 Differences in auxin inactivation pathways in bryophytes and angiosperms Takemoto Agui[1], Yuki Suganuma[1], Masaki Shimamura[2], Ken-ichiro Hayashi[3], Hiroyuki Kasahara[1,4] ([1]Grad. Sch. Agric., TUAT, [2]Grad. Sch. Integr. Sci. Life, Hiroshima Univ., [3]Dept. Biosci., Okayama Univ. Sci, [4]CSRS, RIKEN)	1pG03 E The regulatory interaction between calmodulin-like protein CML13 and tonoplast magnesium ion transporter MRS2-1 Xiaoyu Yang[1], Hexin Xu[2], Motoyuki Hattori[2], Natsuko I. Kobayashi[1], Yuko Kurita[1], Keitaro Tanoi[1] ([1]Graduate School of Agricultural and Life Sciences, The University of Tokyo, [2]School of Life Sciences, Fudan University)	1pH03 E A network approach for the identification of gene clusters in the transcriptome during Nicotiana benthamiana interfamily grafting Frank Opoku-Agyemang[1], Ken-ichi Kurotani[2], Michitaka Notaguchi[3] ([1]Grad.Sch.Agric.NagoyaUniv., [2]Biosci.Biotech.Ctr.NagoyaUniv., [3]Grad.Sch.Sci.KyotoUniv.)				14:30
1pE04 Phytohormones regulate cell-to-cell translocation of florigen at the shoot apex Yusuke Murata, Mitsutomo Abe (Grad. Sch. Arts and Sci., Univ. Tokyo)	1pF04 Development of an orthogonal pair, of the engineered TIR1 and the engineered IAA7 degron, capable of specific interaction Koji Takahashi[1,2], Shinya Hagihara[3] ([1]Grad. Sch. Sci., Nagoya Univ., [2]ITbM, Nagoya Univ., [3]CSRS, RIKEN)	1pG04 Functions of borate exporters in anther to support the development of pollen grains Keita Muro[1], Zhe Zhang[1], Arisa Yamasaki[2], Maki Matsumoto[2], Akira Yoshinari[3], Yu-Ki Tanaka[4], Yasumitsu Ogura[4], Toru Fujiwara[5], Junpei Takano[1,2] ([1]Grad. Agr., Osaka Metr. Univ., [2]Grad. Life Env., Osaka Pref. Univ., [3]ITbM, Nagoya Univ., [4]Grad. Pharma., Chiba Univ., [5]Grad. Agr. Life Sci., Univ. Tokyo)	1pH04 Functional analysis of the isocitrate lyase gene in rice under drought stress conditions Kyonoshin Maruyama[1,2], Miyako Kusano[2,3,4], Makoto Kobayashi[4], Masaki Endo[5] ([1]Biol. Resources Post-harvest Div., JIRCAS, [2]Life & Env. Sci., Univ. Tsukuba, [3]T-PIRC, [4]CSRS, RIKEN, [5]Inst. Agroviol. Sci., NARO)				14:45
1pE05 Function Analysis of Host FT Protein in Floral Transition of *Cuscuta* Plants Masaki Takagawa[1], Mitsutomo Abe[2], Ryusuke Yokoyama[3] ([1]Fac. Sci., Tohoku Univ., [2]Grad. Sch. Art Sci., Univ. Tokyo, [3]Grad. Sch. Life Sci., Tohoku Univ.)	1pF05 *In vivo* assays for the engineered pair of TIR1 and Aux/IAA degron in Arabidopsis plants Masanori Izumi[1], Koji Takahashi[2,3], Sakuya Nakamura[1], Shinya Hagihara[1] ([1]CSRS, RIKEN, [2]Grad. Sch. Sci., Nagoya Univ., [3]ITbM, Nagoya Univ.)	1pG05 Roles of OsLsi1 polarity in boron uptake of rice Noriyuki Konishi, Jian Feng Ma (Okayama Univ. IPSR)	1pH05 Modeling of Transcriptomic Variation among Subgenomes in 25 Accessions of Common Wheat Reveals cis- and trans-Regulation Architectures Yasuyuki Nomura[1], Moeko Okada[2,3,4], Toshiaki Tameshige[2,5], Shotaro Takenaka[1], Kentaro Shimizu[2,3], Shuhei Nasuda[6], Atsushi Nagano[1,7] ([1]Ryukoku Univ., [2]Yokohama City Univ., [3]Univ. of Zurich, [4]Niigata Univ., [5]Kyoto Pref. Univ., [6]Kyoto Univ., [7]Keio Univ.)				15:00

E=Presentation in English

● Day 1, Fri., March 14, PM (14:00–16:45)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Organelles/Cytoskeleton	Genome function/gene regulation
15:15	1pA06 Excitation-emission spectroscopy under cryogenic microscope indicates mega-antenna complexes of photosystem I in *Chlamydomonas* Xianjun Zhang[1,2], Rin Taniguchi[1], Shen Ye[1], Yutaka Shibata[1] ([1]Grad.Sch.Sci., Tohoku Univ., [2]MIT)	1pB06 Functional analysis of *Closterium psl.* BELL1 during zygospore germination Rieko Senda[1], Junko Kawai[1], Nobuhiro Akiyoshi[1], Tomoaki Nishiyama[2], Toshihisa Kotake[3], Tomoko Takagi[4], Hiroyuki Sekimoto[4], Keiko Sakakibara[1] ([1]Rikkyo University, [2]Toyama University, [3]Saitama University, [4]Japan Women's University)	1pC06 Elucidation for the molecular mechanism to regulate GLK transcription factors and maintain chloroplast homeostasis by a chloroplast regulator, BPG4 Ryo Tachibana, Takao Ohashi, Chihiro Ujihara, Ayumi Yamagami, Takuya Miyakawa, Takeshi Nakano (Grad. Sch. Biostudies, Kyoto Univ.)	1pD06 E Towards Understanding the Molecular Mechanisms Behind H3K4me1-Driven Genomic Mutation Bias Satoyo Oya, Daniela Quiroz, Grey Monroe (Dept. Plant Sci., Univ. California, Davis)
15:30	1pA07 E A novel method for Cryo-EM protein sample preparation based on Clear-Native-PAGE Zitong Yang[1,2], Shinsa Kameo[1,2], Genji Kurisu[3], Ryouichi Tanaka[1,2], Akihiro Kawamoto[3], Atsushi Takabayashi[1,2] ([1]ILTS, Hokkaido Univ., [2]Grad. Sch. Env. Sci., Hokkaido Univ., [3]Inst. Protein Res.)	1pB07 TCP transcription factors regulate signaling pathways for cell expansion in *Arabidopsis thaliana* Tomotsugu Koyama[1], Hiromi Toyonaga[1], Mika Nobuhara[1], Nobutaka Mitsuda[2], Junko Ishida[3], Motoaki Seki[3], Koji Takahashi[4,5], Toshinori Kinoshita[4,5], Ayumu Bessho[6], Tadashi Kunieda[6,7], Taku Demura[6,7], Masaru Ohme-Takagi[8] ([1]Suntory Foundation for Life Sciences, [2]AIST, Bioproduction Research Institute, [3]RIKEN, Center for Sustainable Resource Science, [4]Nagoya University, Graduate School of Science, [5]Nagoya University, ITbM, [6]Nara Institute of Science and Technology, Division of Biological Science, [7]Nara Institute of Science and Technology, Center for Digital Green-innovation, [8]Saitama University, Graduate School of Science and Engineering)	1pC07 Characterization Of The DNA-binding Properties Of The Truncated Arabidopsis GLK1 Proteins Hibiki Shiiba[1], Megumi Ito[1], Yasuko Ito-Inaba[1,2], Takehito Inaba[1] ([1]Fac. Agr., Univ. Miyazaki, [2]Grad. Sch. Life Sci., Tohoku Univ.)	1pD07 Planimalization: Synthetic creation of plant/animal hybrid cells Sachihiro Matsunaga[1], Ryota Aoki[1], Yayoi Inui[1], Tomoe Kodama[1], Mone Ishida[1], Yoji Okabe[1], Hidenori Nishihara[2], Tae Kuramoto[2], Takuya Sakamoto[3], Youko Sato[4], Hiroshi Kimura[5], Mayuko Sato[6], Noriko Takeda[6], Kiminori Toyooka[6], Tatsuya Tomo[7], Kintake Sonoike[8], Shinichiro Maruyama[1], Tomoko Matsunaga[1] ([1]Dept. Integrated Biosci., Grad. Sch. Frontier Sci., Univ. Tokyo, [2]Dept. Adv. Biosci., Grad. Sch. Agr., Kindai Univ., [3]Dept. of Sci., Fac. of Sci., Kanagawa Univ., [4]MIB, Kyushu Univ., [5]Inst. of Innov. Res., Inst. Sci. Tokyo, [6]CSRS, RIKEN, [7]Inst. Arts Sci., Tokyo Univ. Sci., [8]Fac. Edu. Integ. Arts Sci., Waseda Univ.)
15:45	1pA08 Photosystem I dependent electron transfer and remodeling processes in *Chlamydomonas reinhardtii* Yu Ogawa[1], Gyana Prakash Mahapatra[2], Andre-Vidal Meireles[3], Laura Mosebach[1], Yuval Milrad[1], Jan Schuller[2], Michael Hippler[1] ([1]IBBP, Univ. Muenster, [2]SYNMIKRO, Philipps-Univ. Marburg, [3]HUN-REN, Inst. Plant. Bio.)	1pB08 Functional analyses of candidate genes associated with heterosis in Arabidopsis early growth Ryuma Maeda[1], Yuko Wada[1], Wijayanti Putri[1], Kazuaki Utsugi[1], Seiji Takayama[2], Toshiro Ito[1] ([1]NAIST, [2]Grad. Sch. of Agri. Life Sci. Tokyo Univ.)	1pC08 Regulation of Chloroplast Biogenesis by Single B-box COL Proteins in Arabidopsis Kotaro Kakuda[1], Mari Abumi[1], Mami Higashi[1], Shiho Shimizu[1], Yasuko Ito-Inaba[1,2], Takehito Inaba[1] ([1]Fac. Agr., Univ. Miyazaki, [2]Grad. Sch. Life Sci., Tohoku Univ.)	1pD08 Exploring cohesin's funcition in the organization of chromosomal domain architecture in *Cyanidioschyzon merolae* Takuya Sakamoto[1], Minami Nakayama[2], Daniel Slane[2], Ryota Aoki[2], Yayoi Inui[2], Shunnosuke Mori[2], Tomoko Matsunaga[2], Yamato Yoshida[3], Takamasa Suzuki[4], Kan Tanaka[5], Sachihiro Matsunaga[2] ([1]Fac. Sci., Kanagawa Univ., [2]Grad. Sch. Fro. Sci., Univ. Tokyo, [3]Grad. Sch. Sci., Univ. Tokyo, [4]Col. Biosci. Biotech., Chubu Univ., [5]CLS., Science Tokyo)
16:00	1pA09 Effects of Q_B-neighboring structure on function of photosystem II Kosuke Tada[1], Kaho Yamagata[1], Kazumi Koyama[2], Miwa Sugiura[1,2] ([1]Graduate School of Science and Engineering, Ehime University, [2]Proteo-Science Research Center, Ehime University)	1pB09 E Investigation of the Molecular Mechanism of Petiole Development in *Arabidopsis thaliana* Yujie Zhao, Zining Wang, Hokuto Nakayama, Hirokazu Tsukaya (Grad. Sch. Sci., Univ. Tokyo)	1pC09 Functional analysis of phage-type plastid RNA polymerases during plastid differentiation in seed plants Yushi Kurotaki, Sho Fujii (Grad. Sch. Agri. Life Sci., Hirosaki Univ.)	1pD09 Analysis of nuclear centromere arrangement in *Arabidopsis thaliana* ecotypes Kento Yano[1], Natumaro Kutsuna[2], Takuya Sakamoto[1] ([1]Fac. Sci., Kanagawa Univ., [2]LPIXEL Inc.)
16:15	1pA10 Affinity site of Mn^{2+} in apo-Photosystem II Naohiko Nakamura, Shinya Kosaki, Hiroyuki Mino (Grad. Sch. Sci., Univ. Nagoya)	1pB10 Nucleolar development during plant cell dedifferentiation in three different tissue culture systems and its regulatory factors Ryuu Morikawa[1], Takaaki Yonekura[1], Kuninori Iwamoto[1], Hatsune Morinaka[2], Takafumi Miyashita[3], Akitoshi Iwamoto[4], Shunji Shimadzu[5], Yuki Kondo[5], Iwai Ohbayashi[6,7], Munetaka Sugiyama[1] ([1]Department of Biological Sciences, Graduate School of Science, The University of Tokyo, [2]CSRS, RIKEN, [3]Department of Biological Sciences, Graduate School of Science, Kanagawa University, [4]Department of Biological Sciences, Faculty of Science, Kanagawa University, [5]Department of Biological Sciences, Graduate School of Science, Osaka University, [6]Department of Life Sciences, National Cheng Kung University, [7]Institute of Tropical Plant Sciences and Microbiology, National Cheng Kung University)	1pC10 Isolation and characterization of plastid peptidoglycan biosynthesis genes from the monilophyte *Lygodium japonicum* Akari Miyabe[1], Takashi Imabeppu[1], Katsuaki Takechi[2], Hiroyoshi Takano[2] ([1]Grad. Sch. Sci. Tech., Kumamoto Univ., [2]Fac. Adv. Sci. Tech., Kumamoto Univ)	

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Flowering/Clock	Plant hormones/ Signaling molecules	Biomembrane/ Ion and solute transport	Systems biology				
1pE06 Elucidation of regulatory mechanism of FLOWERING LOCUS T (FT) transport using mutant FT proteins in *Arabidopsis* Minami Kozakai[1], Mitsutomo Abe[2] ([1]Grad. Sch. Sci., Univ. Tokyo, [2]Grad. Sch. Arts and Sci., Univ. Tokyo)	1pF06 Drug Discovery to Improve Grain Weight of Rice Tatsuki Akabane[1], Madoka Ichikawa[2], Kazuyoshi Ikeda[3,4], Tomoki Yonezawa[4], Ken Ishimaru[5], Etsuko Katoh[6], Naoki Hirotsu[1,2] ([1]Grad. Sch. Life Sci., Toyo Univ., [2]Fac. Life Sci., Toyo Univ., [3]R-CCS, RIKEN, [4]Fac. Pharm., Keio Univ., [5]Inst. Crop Sci., NARO, [6]Fac. Food Nutr. Sci., Toyo Univ.)	1pG06 E Identification of a transporter for cobalt ion uptake in rice Hengliang Huang, Naoki Yamaji, Sheng Huang, Jian Feng Ma (Institute of Plant Science and Resources, Okayama University)	1pH06 Development of a comprehensive analytical method for disulfide redox potentials using redox proteomics Kenya Tanaka[1,2,3], Akihiko Kondo[1,3,4,5], Tomohisa Hasunuma[1,3,4] ([1]EGBRC, Kobe Univ., [2]Grad. Sch. Eng. Sci. RCSEC, Osaka Univ., [3]Grad. Sch. Sci. Technol. Innov., Kobe Univ., [4]CSRS, Riken, [5]Grad. Sch., Eng., Kobe Univ.)	Symposium S04 Underground Chatter: The hidden but lively exchange at the root-soil interface (14:00–16:45)		Symposium S05 Toward Elucidating PHYTOCOSM: Multiscale Symbioses Between Photosynthetic and Heterotrophic Organisms on Earth (14:00–16:45)	15:15
1pE07 Investigation Of The Role Of Endogenous *Cis*-element In The Modulation Of *FT* Gene Expression In Arabidopsis Natsumi Ono[1], Aoha Miki[2], Mayuka Yamamoto[2], Akito Yoshida[2], Katsuya Negishi[3], Masaki Endo[4], Masaki Kobayashi[5], Kappei Kobayashi[1], Seiichi Toki[4,6,7,8], Mitsutomo Abe[9], Hidetaka Kaya[1] ([1]Grad. Sch. Agri., Ehime Univ., [2]Fac. Agri., Ehime Univ., [3]NIFTS, NARO, [4]NIAS, NARO, [5]Forestry Division, JIRCAS, [6]Fac. Agri., Ryukoku Univ., [7]Grad. Sch. of Nanobioscience, Yokohama City Univ., [8]Kihara Institute for Biological Research, Yokohama City Univ., [9]Grad. Sch. Arts and Sci., The Univ. of Tokyo)	1pF07 Analysis of intercellular auxin transport using caged fluorescent auxin Tsuyoshi Aoyama[1], Masakazu Nambo[1], Eunice Gwee[2], Yuh Hijikata[2], Yoshikatsu Sato[1,2,3], Yuichiro Tsuchiya[1,3] ([1]ITbM, Nagoya Univ., [2]Res. Cen. Net-Zero. Carb. Soc., Nagoya Univ., [3]Grad.Sch.Sci., Nagoya Univ.)	1pG07 Role of suberin deposition at the root exodermis in manganese uptake in rice Toshiki Fujii, Naoki Yamaji, Jian Feng Ma (IPSR. Univ. Okayama)	1pH07 [Cancelled]				15:30
	1pF08 Analysis for the novel factor BIL7 regulating transcription factor in BR signaling pathway Kaisei Nishida[1], Yusuke Nakamura[1], Ayumi Yamagami[1], Takuya Miyakawa[1], Minami Matsui[2], Tadao Asami[3], Takeshi Nakano[1] ([1]Life Sci., Univ. Kyotoi, [2]Riken·CSRS, [3]Agriculture, Univ. Tokyo)	1pG08 Possible role of silicon present in rice phloem sap Naoki Yamaji, Namiki Mitani, Noriyuki Konishi, Tomonori Shinya, Jian Feng Ma (IPSR, Okayama Univ.)	1pH08 Integrative omics analysis reveals the role of abscisic acid in regulating plant metabolism in Arabidopsis Takuya Yoshida[1,2,3,4], Alisdair R. Fernie[1] ([1]Max-Planck-Institut für Molekulare Pflanzenphysiologie, [2]Lehrstuhl für Botanik, Technische Universität München, [3]Trans-Omics Facility, National Institute for Basic Biology, [4]Basic Biology Program, SOKENDAI)				15:45
	1pF09 Analysis of rice yield and stress tolerance with high level of BIL7, a novel BR signaling factor Ayano Nishimoto[1], Ayumi Yamagami[1], Noriko Ishikawa[2], Masakazu Kashihara[2], Namuunaa Ganbayar[1], Bujin Bardorj[1], Masaki Mori[3], Tadao Asami[4], Takeshi Nakano[1] ([1]Grad. Sch. Biostudies., Univ. Kyoto, [2]Japan Tobacco Inc., Plant Innovation Center, [3]NARO, [4]Grad. Sch. Agri. Life Sci., Univ. Tokyo)	1pG09 Elucidation of the Mechanisms of Potassium Utilization Mediated by High-Affinity Potassium Transporters in *Arabidopsis thaliana* Taro Yamanashi[1], Takeshi Uchiyama[1], Tomoya Horikoshi[1], Tomoko Takagi[2], Satoshi Yoshida[1], Hayato Ikeda[3], Takuya Yokokita[3], Hidetoshi Kikunaga[3], Misaki Shimizu[4], Yoshiro Saito[4], Misako Miwa[1], Sho Toyama[1], Shigeo Matsuyama[1], Noriko Nagata[2], Mutsumi Yamagami[5], Ellen Tanudjaja[1], Yasuhiro Ishimaru[1], Nobuyuki Uozumi[1] ([1]Grad. Sch. Eng., Univ. Tohoku, [2]Dep. Chem. and Bio. Sci., Japan Women's Univ., [3]RARiS., Univ. Tohoku, [4]Grad. Sch. Pharma., Univ. Tohoku, [5]Institute for Environmental Sciences)	1pH09 AtSRGA: A shiny application for retrieving and visualizing stress-responsive genes in *Arabidopsis thaliana* Yusuke Fukuda[1], Kohei Kawaguchi[1,2], Atsushi Fukushima[1,3] ([1]Kyoto Pref. Univ., [2]Science Tokyo, [3]RIKEN CSRS)				16:00
		1pG10 Dynamics of assimilate transport at the basal node of tomato fruit bunch Chiaki Matsukura[1], Kaixian Cai[2], Yong-Gen Yin[3], Yuta Miyoshi[3], Kazuyuki Enomoto[3], Nobuo Suzui[3], Yusaku Noda[3], Naoki Kawachi[3] ([1]University of Tsukuba, Institute of Life and Environmental Sciences, [2]University of Tsukuba, Degree Program in Life and Earth Sciences, [3]Takasaki Institute for Advanced Quantum Science, National Institutes for Quantum Science and Technology)	1pH10 E Relaxed selection constraints in pulvinus-expressed genes facilitate the evolution of rapid movement in *Mimosa* Yan-Han Fang[1], Hiroaki Mano[2], Tomoaki Nishiyama[3], Mitsuyasu Hasebe[2,4], Chao-Li Huang[1,5] ([1]Graduate Program in Translational Agricultural Sciences, National Cheng Kung University and Academia Sinica, Taiwan, [2]Division of Evolutionary Biology, National Institute for Basic Biology, Japan, [3]Research Center for Experimental Modeling of Human Disease, Kanazawa University, Japan, [4]Basic Biology Program, SOKENDAI (The Graduate University for Advanced Studies), Japan, [5]Institute of Tropical Plant Sciences and Microbiology, National Cheng Kung University, Taiwan)				16:15

E=Presentation in English

● Day 1, Fri., March 14, PM (14:00–16:45)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Organelles/Cytoskeleton	Genome function/gene regulation
16:30	1pA11 Magnetic structural analysis of S_2*g*~5 state of the manganese cluster by multi-frequency electron paramagnetic resonance (EPR) method Shinya Kosaki[1], Yoshiki Nakajima[2], Jian-Ren Shen[2], Hiroyuki Mino[1] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Res. Inst. Interdiscip. Sci., Okayama Univ.)	1pB11 Roles of the SWI2/SNF2 family member BTAF1 in shoot regeneration of Arabidopsis Yukino Ogihara[1], Hatsune Morinaka[2], Akihito Mamiya[3], Kuninori Iwamoto[1], Kyoko Ohashi-Ito[1], Akira Iwase[2], Keiko Sugimoto[2], Takaaki Yonekura[1], Munetaka Sugiyama[1] ([1]Grad. Sch. Sci., [2]CSRS, RIKEN, [3]Grad. Sch. Sci., Kobe Univ.)	1pC11 Search for genes involved in D-amino acid synthesis in the moss *Physcomitrium patens* Rikuto Nakamura[1], Sayaka Yoshimoto[1], Mio Takishita[2], Tomokazu Ito[3], Katsuaki Takechi[4], Hiroyoshi Takano[4] ([1]Grad. Sch. Sci. Tech., Kumamoto Univ., [2]Sch. Sci., Kumamoto Univ., [3]Grad. Sch. Bioagri. Sci., Nagoya Univ., [4]Fac. Adv. Sci. Tech., Kumamoto Univ.)	

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Flowering/Clock	Plant hormones/ Signaling molecules	Biomembrane/ Ion and solute transport	Systems biology				
		1pG11 Leaf position and season-dependent changes in transcriptome and ionome analysis of field-grown poplar cuttings Yuko Kurita[1], Makoto Kashima[2], Kei'ichi Baba[3], Kimitsune Ishizaki[4], Natsuko I. Kobayashi[1], Keitaro Tanoi[1], Tetsuro Mimura[4,5], Atsushi Nagano[6,7] ([1]Graduate School of Agricultural and Life Sciences, The University of Tokyo, [2]Department of Molecular Biology, Faculty of Science, Toho University, [3]Research Institute for Sustainable Humanosphere (RISH), Kyoto University, [4]Graduate School of Science, Kobe University, [5]Faculty of Bioenvironmental Sciences, Kyoto University of Advanced Science, [6]Faculty of Agriculture, Ryukoku University, [7]Institute for Advanced Biosciences (IAB), Keio University)	1pH11 Genomic prediction and validation of the reduction of herbivory through mix planting of Arabidopsis using NeighborGWAS Kentaro Shimizu[1,2], Yasuhiro Sato[1,3,4], Kazuya Takeda[3], Bernhard Schmid[5], Atsushi Nagano[3,6,7] ([1]Dept Evol Biol Env Sci, Univ Zurich, [2]Kihara Inst Biol Res, Yokohama City Univ, [3]Research Institute for Food and Agriculture, Ryukoku University, [4]Faculty of Environmental Earth Science, Hokkaido University, [5]Dept Geography, Univ Zurich, [6]Faculty of Agriculture, Ryukoku University, [7]Institute for Advanced Biosciences, Keio University)	Symposium S04 Underground Chatter: The hidden but lively exchange at the root-soil interface (14:00–16:45)		Symposium S05 Toward Elucidating PHYTOCOSM: Multiscale Symbioses Between Photosynthetic and Heterotrophic Organisms on Earth (14:00–16:45)	16:30

Ⓔ=Presentation in English

● Day 2, Sat., March 15, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Organelles/Cytoskeleton	Primary metabolism
09:00	2aA01 Effects of chiral PG molecules on the photosystem of cyanobacteria Yoshiki Tanase[1], Masato Abe[2], Hajime Wada[3], Yoshitaka Nishiyama[1], Haruhiko Jimbo[1,3] ([1]Grad. Sch. Sci. Eng., Saitama Univ, [2]Graduate School of Agriculture, University of Ehime, [3]Graduate School of Arts and Sciences, University of Tokyo)	2aB01 Analysis of epigenetic priming mechanisms involved in the acquisition of regenerative capacity in plants Nodoka Handa[1], Hikaru Sato[1], Takuya Sakamoto[2], Sachihiro Matsunaga[1] ([1]Dept. Integr. Biosci., Grad. Sch. Front. Sci., Univ. Tokyo, [2]Dept. Sci., Fac. Sci., Kanagawa Univ.)	2aC01 Dynamics of HSP101 localization during heat acclimation in Arabidopsis thaliana Yuzuki Nishi[1], Shiyu Shimoyama[1], Mei Ichikawa[2], Yukiko Yamamoto[2], Takahito Takei[2], Takahiro Hamada[1,2] ([1]Grad. Sch. Sci. and Eng., Okayama Univ. of Sci., [2]Fac. of Sci., Okayama Univ. of Sci.)	2aD01 The effect of *NodGS* gene on amino acid accumulation in glutathione-fed plants Soichiro Noda, Kenji Henmi, Ken'ichi Ogawa (Res. Inst. Biol. Sci., Okayama)
09:15	2aA02 Analysis of the photoinhibition in Photosystem I in the green alga *Chlamydomonas reinhardtii* Hiroko Takahashi[1], Sotaro Koike[2], Saho Takagi[2], Yoshitaka Nishiyama[1] ([1]Graduate School of Science and Engineering, Saitama University, [2]1Department of Biochemistry and Molecular Biology, Saitama University)	2aB02 E Functional analysis of a blue light receptor during *de novo* plant regeneration Min Li[1], Hikaru Sato[1], Takuya Sakamoto[2], Yayoi Inui[1], Kazunari Yamamoto[1], Tomonao Matsushita[3], Sachihiro Matsunaga[1] ([1]Grad. Sch. of Front. Sci., Univ. Tokyo, [2]Grad. Sch. Sci., Univ. Kanagawa, [3]Grad. Sch. Sci., Univ. Kyoto)	2aC02 Identification of kinesins for fusion of HSPs-containing stress granules in Arabidopsis Naoya Otsubo[1], Yuzuki Nishi[2], Mei Ichikawa[1], Yukiko Yamamoto[1], Michiko Sasabe[3], Misato Ohtani[4], Koshi Imami[5], Takahito Takei[1], Takahiro Hamada[1,2] ([1]Fac. of Sci., Okayama Univ. of Sci, [2]Grad. Sch. Sci. and Eng., Okayama Univ. of Sci., [3]Fac. of Agri. and Life Sci. Hirosaki Univ, [4]Grad. Sch. Front. Sci., Univ. Tokyo, [5]IMS, Riken)	2aD02 GSSG feeding improves nitrogen utilization efficiency and expands the range of growth conditions Ken'ichi Ogawa[1], Satoshi Mochizuki[1], Soichiro Noda[1], Aya Hatano-Iwasaki[1], Masato Nakagawa[1], Masanobu Nishikawa[1], Yasukazu Moteki[2], Hitoshi Watanabe[2] ([1]Res. Inst. Biol. Sci, OKAYAMA (RIBS OKAYAMA), [2]Gifu Pref. Res. Inst. Forests)
09:30	2aA03 Roles of antioxidation and translational systems in the thermotolerance of photosystem II in *Synechocystis* sp. PCC 6803 Pornpan Napaumpaiporn, Yoshitaka Nishiyama (Grad. Sch. Sci. Eng., Saitama Univ.)	2aB03 E Roles of the Epidermal Tissue in Shoot Regeneration of Arabidopsis Yuki Doll, Momoko Ikeuchi (Div. Bio. Sci., Grad. Sch. Sci. Tech., NAIST)	2aC03 The Analysis of ROP effectors regulating the cell wall formation of xylem vessels Wataru Kobayashi, Takema Sasaki, Yoshihisa Oda (Dep. Biol. Sci., Grad. Sch. Sci., Nagoya Univ.)	2aD03 Comparison of the effects of different nitrogen fertilization conditions on the content and composition of free amino acids in grains among rice cultivars Aya Kishie, Daisuke Takagi (Grad. Sch. Agric., Setsunan Univ.)
09:45	2aA04 Effects of photosystem I electron donor and acceptor side regulation on photosystem I photoinhibition Yuki Okegawa[1], Hiroshi Yamamoto[2], Toshiharu Shikanai[2], Wataru Sakamoto[1] ([1]IPSR, Univ. Okayama, [2]Grad Sch Sci, Univ. Kyoto)	2aB04 Regulatory Roles of WOX13 in Pluripotency Acquisition of Callus and Development of Lateral Roots Eri Odaira, Momoko Ikeuchi (NAIST)	2aC04 Functional analysis of the DOCK-type ROP activating protein involved in the secondary cell wall patterning in xylem vessels Momoko Nagae, Takema Sasaki, Yoshihisa Oda (Dep. Biol. Sci., Sch. Sci, Nagoya Univ.)	2aD04 Impact of Lacking *OsGS1;1* on Rice Growth Under Long-Term Ammonium Deficiency Following a Period of Ammonium Sufficiency Ai Nozaki[1], Chihaya Fukai[1], Atsushi Fukushima[2,6], Soichi Kojima[3], Miyako Kusano[4,5,6] ([1]Grad. Sch. Life and Env. Sci., Univ. Tsukuba, [2]Grad. Sch. Life and Env. Sci., Univ. Kyoto Pref, [3]Grad. Sch. Agr. Sci., Univ. Tohoku, [4]Sch. Life and Env. Sci., Univ. Tsukuba, [5]T-PIRC, Univ. Tsukuba, [6]RIKEN CSRS)
10:00	2aA05 Regulation of PSI Cyclic Electron Transport by Plastoquinone and Ferredoxin Redox States: Implications for Proton Motive Force ΔΨ Induction Hayato Satoh[1], Yuri Ohara[1], Guy Hanke[2], Kentaro Ifuku[3], Yuji Suzuki[4], Amane Makino[5,6], Kenichi Morigaki[1], Chikahiro Miyake[1] ([1]Grad Sch Agri Sci, Kobe Univ, [2]Sch Biochem Chem, QMUL, [3]Grad Sch Agri, Kyoto Univ, [4]Fac Agri, Iwate Univ, [5]Grad Sch Agri Sci, Tohoku Univ, [6]Inst Excel High Educ, Tohoku Univ)	2aB05 E Prolonged cold enhance pluripotency acquisition to promote regeneration in Arabidopsis Fuyu Hung (RIKEN)	2aC05 Analysis of a novel microtubule-associated protein in sieve elements Yuki Sugiyama[1,2], Yoshihisa Oda[2] ([1]IAR, Nagoya Univ., [2]Dep. Biol. Sci., Grad. Sch. Sci., Nagoya Univ.)	2aD05 Regulation of flowering and metabolism under low nitrogen conditions by the SnRK1-FBH4 module in Arabidopsis Miho Sanagi[1], Madoka Ogura[2], Akio Kubo[3], Soichi Inagaki[4], Filip Rolland[5], Junpei Takagi[1], Takeo Sato[1] ([1]Fac. Sci., Hokkaido Univ., [2]Sch. Sci., Hokkaido Univ., [3]Grad. Sch. Life Sci., Hokkaido Univ., [4]Grad. Sch. Sci, Univ. Tokyo, [5]Dept. Biol, KU Leuven)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/Signaling molecules	Reproduction	Plant-organism interaction B				
2aE01 Reactive carbonyl species generated from lipid peroxides are common substrates of glutathione transferase Tau isozymes Ryosuke Nakasuga[1], Takuyu Hashiguchi[2], Jun'ichi Mano[1,3] ([1]Grad. Sch. Sci. Tech. Innov., Yamaguchi Univ., [2]Fac. Region. Innov., Univ. Miyazaki, [3]Sci. Res. Center, Yamaguchi Univ.)	2aF01 Stomata-derived secretory peptide directs mesophyll air space formation Yuki Yoshida[1], Chihiro Kanzaki[2], Miku Tashiro[2], Kazuma Nunogami[3], Shinichiro Sawa[1,2,3] ([1]IRCAEB, Kumamoto Univ., [2]GSST, Kumamoto Univ., [3]Dept. Sci., Kumamoto Univ.)	2aG01 Stigmatic proton pump is involved in the post-pollination processes in Brassicaceae plants Maki Hayashi[1], Kazuki Fukushima[1], Hiromi Masuko-Suzuki[1], Shin-ichiro Inoue[2], Toshinori Kinoshita[3,4], Yoshinobu Takada[1], Masao Watanabe[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]Grad. Sch. Sci. Engr., Saitama Univ., [3]Grad. Sch. Sci., Nagoya Univ., [4]ITbM, Nagoya Univ.)	2aH01 Ⓔ Nutrient Conditions Influence The Tripartite Interaction of *Arabidopsis thaliana*, Bacterium *Pseudomonas aeruginosa*, and Fungus *Colletotrichum tofieldiae* Yuniar Devi Utami[1], Jun Murata[2], Rikako Hirata[3], Akira Mine[3], Kei Hiruma[1] ([1]Grad. Sch. Arts and Sci., Univ. Tokyo, [2]Suntory Foundation for Life Sciences, [3]Grad. Sch. Agr., Kyoto Univ.)	Symposium S06 Multi-signal processing mechanisms: how plants simultaneously deal with different stimuli? (9:00–11:50)	Symposium S07 Advanced plant -omics in plant sustainability and environmental resilience (9:00–12:00)	Symposium S08 The Symposium of Phototrophic Microorganisms (9:00–12:00)	09:00
2aE02 Plant compounds that can scavenge acrolein, an oxidative signal molecule Jun'ichi Mano[1,2], Ayako Hada[2], Yasumasa Matsuoka[3] ([1]Sci. Res Center, Yamaguchi Univ., [2]Grad. Schl. Sci. Technol. Innov., Yamaguchi Univ., [3]Adv. Technol. Inst., Yamaguchi Univ.)	2aF02 Physiological analysis of the positive effect of CLE2 on root sucrose status Satoru Okamoto[1], Ai Soma[2], Ryohei Sugita[3], Ryosuke Sasaki[4], Kensuke Kawade[4,5], Akira Oikawa[4,6], Masami Hirai[4], Keitaro Tanoi[2] ([1]Grad. Sch. Sci and Tech., Univ. Niigata, [2]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [3]Isotope Fac. Agri. Edu. and Research, Nagoya Univ., [4]RIKEN CSRS, [5]Grad. Sch. Sci. Engin., Saitama Univ., [6]Grad Sch Agri., Kyoto Univ.)	2aG02 Searching for genes involved in the acceptance of heterologous pollen in natural strains of *Arabidopsis thaliana* Tsukasa Matsuura[1], Yoshinobu Kato[1,2], Kenta Shirasawa[3], Kayo Mori[1], Seiji Takayama[1], Sota Fujii[1,4] ([1]Grad. Sch. Agric. Lif. Sci, Univ. Tokyo, [2]Precursory Research for Embryonic Science and Technology, [3]Kazusa DNA. Res. Inst., [4]Suntory Rising Stars Encouragement Program in Life Sciences)	2aH02 Exploration of phosphorus-dependent beneficial relationships between *Arabidopsis thaliana* and *Colletotrichum tofieldiae* with a focus on nutrient exchange Daisuke Watanabe[1], Ryohei Sugita[2], Masaki Okumura[3], Ai Kaiho-Soma[4], Keitaro Tanoi[4], Kei Hiruma[1] ([1]Grad. Sch. of Arts and Sci., Univ. Tokyo, [2]Radioisotope, Nagoya Univ., [3]Kihara Inst. Biol. Res., Yokohama City Univ., [4]Grad. Sch. of Agri. and Life Sci., Univ. Tokyo)				09:15
2aE03 Functional analysis of B3-Raf like kinase family in tomato Thuong Nguyen, Shinnosuke Kimura, Izumi Yotsui, Teruaki Taji, Yoichi Sakata (Dept. of Biosci., Tokyo Univ. of Agri.)	2aF03 Functional analysis of shorter protein isoform of tyrosylprotein sulfotransferase in ArabidopsisFunctional analysis of shorter protein isoform of tyrosylprotein sulfotransferase in Arabidopsis Ryotaro Mitsuboshi[1], Kazumasa Shirai[2], Kousuke Hanada[2], Tomoo Shimada[1], Yoshikatsu Matsubayashi[3], Yoshito Oka[1], Tomonao Matsushita[1] ([1]Grad. Sch. Sci., Kyoto Univ, [2]Grad. Sch. Comput. Sci. Sys. Eng., Kyushu Inst. Tech, [3]Grad. Sch. Sci., Nagoya Univ)	2aG03 Dynamics of sperm cell plasma membrane and peri-germ cell membrane upon pollen tube discharge in *Arabidopsis* Naoya Sugi[1], Daichi Susaki[1,2], Kazuo Ebine[3,4], Hidenori Takeuchi[5,6], Shiori Nagahara[7], Tetsu Kinoshita[1], Thomas Widiez[8], Daisuke Maruyama[1] ([1]KIBR, Yokohama City Univ., [2]Coll. of Sci., Shizuoka Univ., [3]Div. Cellular Dynamics, NIBB, [4]SOKENDAI, [5]IAR, Nagoya Univ., [6]ITbM, Nagoya Univ., [7]GSSci, Kyoto Univ., [8]Univ. Lyon, ENS de Lyon, UCB Lyon, CNRS, INRAE)	2aH03 Ⓔ The root endophytic fungus *Colletotrichum tofieldiae* promotes plant growth under nitrogen-limiting conditions via multiple strategies Tan Anh Nhi Nguyen[1], Yuniar Devi Utami[1], Masami Nakamura[1], Takuya Wada[1], Kenta Ikazaki[2], Kei Hiruma[1] ([1]The University of Tokyo, [2]Crop, Livestock and Environment Division, JIRCAS)				09:30
2aE04 The role of myosin XI in plant adaptive responses to abiotic stress Haiyang Liu[1], Motoki Tominaga[2] ([1]Grad. Sch., Adv. Sci. Eng., Waseda Univ., [2]Fac. Educ. Integrated Arts. Sci., Bio., Waseda Univ.)	2aF04 Ⓔ Novel CLE peptides are involved in the regulation of cambium stem cells during secondary growth in Arabidopsis Hui Cao[1], Kohji Murase[2], Dongbo Shi[1,3] ([1]University of Potsdam, [2]University of Tokyo, [3]RIKEN)	2aG04 Exploring the roles of brassinosteroids in plant reproduction Kumi Matsuura-Tokita[1,2], Takamasa Suzuki[3], Yusuke Kimata[4], Yumiko Takebayashi[5], Minako Ueda[4], Takeshi Nakano[6], Hitoshi Sakakibara[5], Akihiko Nakano[1], Tetsuya Higashiyama[2] ([1]RAP, RIKEN, [2]Grad.Sch. Sci., The University of Tokyo, [3]College of Bioscience and Biotechnology, [4]Grad.Sch. Life Sci., Tohoku University, [5]CSRS, RIKEN, [6]Grad. Sch. Biostudies, Kyoto University)	2aH04 Local and long-distance nitrogen signals suppress formation of prehaustoria in the parasitic plant *Phtheirospermum japonicum* Shoko Inaba, Satoko Yoshida (NAIST BS)				09:45
2aE05 Impacts of Ascorbate Redox Cycling Systems and Senescence Signaling on Dark-Induced Ascorbate Degradation Tamami Hamada[1], Kojiro Yamamoto[1], Koichi Nakayama[2], Takanori Maruta[1,2] ([1]Grad. Sch. Nat. Sci. Technol., Shimane Univ., [2]Life Environ. Sci., Shimane Univ.)	2aF05 Functional analysis of the cysteine-rich peptide involved in the environmental stress response Tomoko Niwa[1,2], Ayano Goto[3], Marina Waku[3], Takehiro Kamiya[4], Shunsuke Oishi[5], Yoko Mizuta[5,6], Hiroki Tsutsui[7], Kyoko Miwa[8], Atsushi Nagano[9,10], Tetsuya Higashiyama[11], Takatoshi Kiba[3], Hitoshi Sakakibara[3], Ryo Tabata[1] ([1]Sch. Agri., Meiji Univ., [2]OSRI, Meiji Univ., [3]Grad. Sch. Bioagri. Sci., Nagoya Univ., [4]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [5]WPI-ITbM, Nagoya Univ., [6]IAR, Nagoya Univ., [7]OIST, [8]Grad. Sch. Environ. Sci., Hokkaido Univ., [9]Fac. Agri., Ryukoku Univ., [10]IAB, Keio Univ., [11]Grad. Sch. Sci., Univ. Tokyo)	2aG05 Molecular function analysis of DMP9, a regulator in double fertilization control Yura Seo, Ari Yoshimura, Tomoko Igawa (Grad. Sch. Hort., Chiba Univ.)	2aH05 Effect of host thermospermine on vascular development of *Cuscuta campestris* Koki Nagao[1], Taku Takahashi[1], Ryusuke Yokoyama[2] ([1]Grad. Sch., Univ. Okayama, [2]Grad. Sch., Univ. Tohoku)				10:00

Ⓔ=Presentation in English

● Day 2, Sat., March 15, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Organelles/Cytoskeleton	Primary metabolism
10:15	2aA06 Both PQ pool reduction and ferredoxin oxidation in *RBCS*-antisense rice plants suppressed ferredoxin-dependent cyclic electron transport around PSI without inducing ΔΨ of the proton motive force Yuri Ohara[1], Nodoka Ohtsu[1], Kentaro Ifuku[2], Kenichi Morigaki[1], Ginga Shimakawa[1], Yuji Suzuki[3], Amane Makino[4,5], Chikahiro Miyake[1] ([1]Grad Sch Agri Sci Kobe Univ, [2]Grad Sch Agri Sci Kyoto Univ, [3]Fac Agri Iwate Univ, [4]Inst Excel High Educ Tohoku Univ, [5]Grad Sch Agri Sci TOHOKU Univ)	2aB06 Investigation of the Cell Fate Reprogramming of Mature Somatic Cells: Single-Cell Transcriptomics during Shoot Regeneration Hatsune Morinaka[1], Kotaro Torii[1], Dongbo Shi[1], Ayako Kawamura[1], Takamasa Suzuki[2], Akira Iwase[1], Tetsuya Higashiyama[3], Munetaka Sugiyama[3], Keiko Sugimoto[3] ([1]CSRS, RIKEN, [2]Dept. Biol. Chem., Coll. Biosci. Biotech., Chubu Univ., [3]Dept. Biol. Sci., Grad. Sch. Sci., Univ. Tokyo)	2aC06 Organelle Positioning And Transport In The Coenocytic Green Alga *Bryopsis* Harumi Ogawa, Gohta Goshima (Sugashima Marine Biological Laboratory, Graduate School of Science, Nagoya University)	2aD06 C/N responsive membrane trafficking factor MIN7/BEN1/BIG5 affects the secretory pathway Kaito Endo[1], Hiroki Matsui[2], Juna Eda[2], Miho Sanagi[3], Junpei Takagi[3], Takeo Sato[3] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Sch. Sci., Hokkaido Univ., [3]Fac. Sci., Hokkaido Univ.)
10:30	2aA07 Inhibitory effects on the photosynthetic electron transport chain differ between antimycin A types Ko Imaizumi[1], Daisuke Takagi[2], Kentaro Ifuku[1] ([1]Grad. Sch. Agric., Kyoto Univ., [2]Grad. Sch. Agric., Setsunan Univ.)	2aB07 E Molecular mechanisms of self-organization in plant regeneration Ye Zhang, Hazel Marie Kugan, Varin Pornpanomchai, Masaaki Umeda (Grad. Sch. Sci. & Tech., NAIST)	2aC07 Analysis of a novel factor in the microtubule-endoplasmic reticulum interaction Midori Doi, Takema Sasaki, Yoshihisa Oda (Dep. Biol. Sci., Grad. Sch. Sci., Nagoya Univ.)	2aD07 The effect of nitrate on adventitious bud formation from levels of *Drosera tokaiensis* Juse Okamoto[1], Taketo Ishikawa[2], Mayu Inayoshi[2], Shinichiro Ito[1], Arisa Yoshioka[2], Nobuyuki Takatani[2], Tatsuo Omata[2], Makiko Aichi[2] ([1]Grad. Sch. Biosci. Biotech., Chubu Univ., [2]Col. Biosci. Biotech., Chubu Univ.)
10:45	2aA08 Different strategies to keep photosystem I oxidized during chilling stress among plant species Ko Takeuchi[1], Shintaro Harimoto[1], Chikahiro Miyake[2], Kentaro Ifuku[1] ([1]Grad. Sch. Agri., Univ. Kyoto, [2]Grad. Sch. Agri., Univ. Kobe)	2aB08 Auxin-inducible LBD transcription factors suppress shoot regeneration in phytohormone-induced callus Akihito Mamiya[1], Koki Wada[1], Hatsune Morinaka[2], Ayako Kawamura[2], Kotaro Torii[2], Akira Iwase[2], Tatsuaki Goh[3], Yuki Kondo[1,4], Kimitsune Ishizaki[1], Keiko Sugimoto[2], Hidehiro Fukaki[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]CSRS, RIKEN, [3]Grad. Sch. Tech., NAIST, [4]Grad. Sch. Sci., Osaka Univ.)	2aC08 A NIMA-related protein kinase directs tip growth of protonema in *Physcomitrium patens* Hiroyasu Motose[1], Sho Harima[1], Keita Nakamura[2], Yuji Hiwatashi[2] ([1]Dep. Biol., Fac. Sci., Okayama Univ., [2]Grad. Sch. Food, Agricul. Environ. Sci., Miyagi Univ.)	2aD08 Enhancement in γ-aminobutyric acid production in the nitrogen-fixing cyanobacterium *Anabaena* sp. PCC 7120 through metabolic engineering Yuki Hatanaka[1], Ayaka Tsuji[2], Yuichi Kato[3], Akihiko Kondo[1,2,4], Tomohisa Hasunuma[1,2,4] ([1]Grad. Sch. Sci. Technol. Innov., Univ. Kobe, [2]EGBRC, Univ. Kobe, [3]Fac. Eng., Univ. Toyama Pref, [4]CSRS, RIKEN)
11:00	2aA09 Exploring the Role of Alternative Electron Flow in Mitigating PSI Photoinhibition under Chilling Stress in Cucumber Shintaro Harimoto[1], Ko Takeuchi[1], Yufen Che[2], Kentaro Ifuku[1] ([1]Grad. Sch. Agri., Kyoto Univ., [2]Grad. Sch. Bio., Kyoto Univ.)	2aB09 A transient cytokinin response maximum completes bifacial vascular stem cells for radial growth Shunji Shimadzu[1,2,3], Takaaki Yonekura[2], Tomoyuki Furuya[1,3,4], Mikiko Kojima[5], Kimitsune Ishizaki[3], Masashi Asahina[6,7], Kyoko Ohashi-Ito[2], Hitoshi Sakakibara[5,8], Hidehiro Fukaki[3], Hiroo Fukuda[9], Yuki Kondo[1,3] ([1]Grad. Sch. Sci., Osaka Univ., [2]Grad. Sch. Sci., The Univ. of Tokyo, [3]Grad. Sch. Sci., Kobe Univ., [4]Col. Sch. Sci., Ritsumeikan Univ., [5]RIKEN CSRS, [6]Dept. Biosci., Teikyo Univ., [7]Adv. Inst. Anal. Center, Teikyo Univ., [8]Grad. Sch. Bioagric. Sci., Nagoya Univ., [9]Akita Prefectural Univ.)	2aC09 A Kinesin-14 facilitates prospindle assembly in *Marchantia polymorpha* Takema Sasaki, Yoshihisa Oda (Dep. Biol. Sci., Grad. Sch. Sci, Nagoya Univ.)	2aD09 The reversible changes in total mRNA concentrations in rice leaves depending on phosphorus fertilization rate Daisuke Takagi, Aya Kishie (Grad. Sch. Aric., Setsunan University)
			Cell cycle/Cell division	
11:15	2aA10 PIFI protein regulates the redox state of the PQ pool by controlling the activity of the chloroplast NDH complex in *Arabidopsis thaliana* Kaori Kohzuma[1], Minami Murai[1], Ko Imaizumi[1], Ayaka Kimura[1], Keisuke Yoshida[2,3], Yufen Che[4], Noriko Ishikawa[1], Toru Hisabori[2,5], Kentaro Ifuku[1] ([1]Grad. Sch. Agric., Kyoto Univ., [2]CLS, Tokyo Tech., [3]CLS, Science Tokyo, [4]Grad. Sch. Biostudies., Kyoto Univ., [5]SOKENDAI)	2aB10 E Phytochemical and Molecular Analysis of Natural Growth Substances Producing Plants Asad Jan (IBGE, The University of Agriculture Peshawar, Pakistan)	2aC10 Abscisic acid prolongs the lifespan of tobacco BY-2 cells without cell proliferation Tomoharu Inoue[2], Maki Fukuda[2], Ken Matsuoka[1,2] ([1]Fac. Agr., Kyushu Univ., [2]Grad. Sch. Agr., Kyushu Univ.)	2aD10 Identification of genes contributing to low oxalate content in spinach Haruto Yamanaka[1], Shouya Ichikawa[1], Kazuhiro Ishibashi[2], Kentaro Sasaki[2], Goro Masuda[1], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Inst. Agrobio. Sci., NARO)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/Signaling molecules	Reproduction	Plant-organism interaction B				
2aE06 Metabolism of L-Threonate, an Ascorbate Degradation Product, in Arabidopsis Kojiro Yamamoto[1], Atsuko Miyagi[2], Hideki Murayama[2], Takanori Maruta[1] ([1]Grad. Sch. Nat. Sci. Technol., Shimane Univ., [2]Fac. Agric., Yamagata Univ.)	2aF06 Functional Analysis of CLE46 Peptide Signaling in *Arabidopsis thaliana* Tatsuya Ito[1], Hiroo Fukuda[2,3], Satoshi Endo[2] ([1]Grad. Sch. Bioenviron. Sci., Kyoto Univ. Adv. Sci., [2]Fac. Bioenviron. Sci., Kyoto Univ. Adv. Sci., [3]Akita Pref. Univ.)	2aG06 Transcriptional dynamics during karyogamy in rice zygotes Erika Toda[1,2,3], Shizuka Koshimizu[4,5,6], Atsuko Kinoshita[2], Tetsuya Higashiyama[3], Takeshi Izawa[1], Kentaro Yano[7], Takashi Okamoto[2] ([1]Grad. Sch. Agric. Life Sci., Univ. Tokyo, [2]Grad. Sch. Sci., Tokyo Metropolitan Univ., [3]Grad. Sch. Sci., Univ. Tokyo, [4]Grad. Sch. Agric., Meiji Univ., [5]Dept. Informatics, NIG, [6]SOKENDAI, [7]WellGreen-i Co. Ltd.)	2aH06 Ⓔ Spatial and nutritional effects on the *Orobanche minor* – red clover association Louis Irving (Life Env. Sci, U Tsukuba)	Symposium S06 Multi-signal processing mechanisms: how plants simultaneously deal with different stimuli? (9:00–11:50)	Symposium S07 Advanced plant -omics in plant sustainability and environmental resilience (9:00–12:00)	Symposium S08 The Symposium of Phototrophic Microorganisms (9:00–12:00)	10:15
2aE07 Role of ethylene receptor-related sensor histidine kinases in the regulation of ABA signaling Marcos Takeshi Miyabe[1], Taketo Sasaki[1], Hiroki Matsumura[1], Tsukasa Toriyama[1], Daisuke Takezawa[2], Izumi Yotsui[1], Teruaki Taji[1], Yoichi Sakata[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Grad. Sch. of Sci and Eng., Saitama University)	2aF07 Exploring the role of CLE peptides in environmental stress responses Akie Shimotohno (Nagoya University)	2aG07 Functional analysis of possible inducers and repressor for autonomous development of egg cells in rice Yuna Taki[1], Yukino Ogihara[1], Kasidit Rattanawong[1], Riku Sawamoto[1], Valeria Vetencourt[1,2], Hironori Takasaki[3], Miho Ikeda[4], Yoshimi Oshima[5], Saku Kijima[5], Nobutaka Mitsuda[5], Masaru Ohme-Takagi[3,6], Takashi Okamoto[1] ([1]Grad. Sch. Sci., Tokyo Metropolitan Univ., [2]Life Sci. Eng., HTW Berlin, [3]Grad. Sch. Sci. Eng., Saitama Univ., [4]Grad. Sch. Biosci. Biotec., Fukui Pref. Univ., [5]BPRI, AIST, [6]Inst. Tropical Plant, NUCK)	2aH07 Transcriptional regulation of secondary plasmodesmata formation in the parasitic interface Kyo Morinaga, Koh Aoki (Grad. Sch. Agric., Osaka Metro. Univ)				10:30
2aE08 Novel membrane protein mediates exocytic pathway and regulates long-distance signaling under drought stress conditions Haruka Otani[1], Wakana Inoue[1], Mayuko Sato[2], Kiminori Toyooka[2], Takehiro Suzuki[2], Naoshi Dohmae[2], Fuminori Takahashi[3] ([1]Grad. Sch. Fac. Adv. Eng., TUS, [2]CSRS, RIKEN, [3]Fac. Adv. Eng., TUS)	2aF08 Molecular Mechanism of PRK-ROPGEF Signaling Modulating Pollen Tube Behavior Nozomi Naiki[1], Fumika Okamoto[1], Kazuo Ebine[2,3], Hiromasa Shikata[2,3], Takuya Nagae[4], Yoko Mizuta[5,6], Tetsuya Higashiyama[7], Hidenori Takeuchi[5,6] ([1]Grad. Sch. Sci., Nagoya Univ., [2]NIBB, [3]Grad. Inst. for Adv. Stud., SOKENDAI, [4]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [5]ITbM, Nagoya Univ., [6]Inst. Adv. Res., Nagoya Univ., [7]Grad. Sch. Sci., Univ. Tokyo)	2aG08 Ⓔ Fertilization-independent development and regeneration of rice egg cells induced by a histone deacetylase (HDAC) inhibitor Kasidit Rattanawong[1], Mizuki Wada[1], Kaori Totsuka[1], Iwao Kokubu[1], Shizuka Koshimizu[2,3], Kentaro Yano[4], Ayato Sato[5], Takashi Okamoto[1] ([1]Grad. Sch. Sci., Tokyo Metropolitan Univ., [2]Dept. Informatics, NIG, [3]SOKENDAI, [4]WellGreen-i Co. Ltd., [5]ITbM, Nagoya Univ.)	2aH08 Plant growth-promoting bacteria facilitate adaptation to nutrient deficiency in paddy rice Kanako Inoue[1], Yuki Fukumoto[1], Mari Okuda[1], John Jewish Dominguez[1], Takumi Murakami[2], Yusuke Saijo[1] ([1]Grad. Sch. Sci and Tech., NAIST, [2]Life Sci. Tech., Tokyo Inst. of Tech.)				10:45
2aE09 A novel stomatal opening chemical, PP242, suppresses ABA signal transduction in guard cells Airi Oh[1], Riku Kimura[1], Shinpei Inoue[1], Taiyo Sato[1], Yuki Hayashi[1], Ayato Sato[2], Yohei Takahashi[1,2], Toshinori Kinoshita[1,2] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]ITbM, Univ. Nagoya)	2aF09 Ⓔ Structural basis for quinones and hydrogen peroxide perception in plants Anuphon Laohavisit[1], Nobuaki Ishihama[2], Yohta Fukuda[3], Yumiko Shirano[1], Kaori Takizawa[2], Ryoko Hiroyama[2], Kazuhiro J. Fujimoto[1], Hiroki Ito[4], Mayumi Nishimura[4], Takeshi Yanai[1], Tsuyoshi Inoue[3], Ken Shirasu[2] ([1]Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University, Japan, [2]Plant Immunity Research Group, RIKEN CSRS, Yokohama, Kanagawa, Japan, [3]Graduate School of Pharmaceutical Sciences, Osaka University, Japan, [4]Technical Center, Nagoya University, Japan)	2aG09 Interaction of ERECTA and brassinosteroids in ovule and seed development Naoto Kawakami[1], Kiyo Imanari[1], Natsuki Ohnuma[1], Chihiro Nomura[1], Takahito Nomura[2], Nobuyoshi Nakajima[3], Hirokazu Tanaka[1] ([1]Sch. Agr., Meiji Univ., [2]C. Bio. Res. Ed., Utsunomiya Univ., [3]NIES)	2aH09 Analysis of *Sphingobium* enrichment in the tomato rhizosphere by using cultivar and wild type Kyoko Takamatsu[1], Masaru Nakayasu[1], Hisabumi Takase[2], Shinichi Yamazaki[3,4], Yuichi Aoki[4,5], Masaru Kobayashi[6], Kentaro Ifuku[6], Kazufumi Yazaki[1], Akifumi Sugiyama[1] ([1]RISH, Kyoto Univ., [2]Fac. of Bioe. KUAS, [3]RIKEN BRC, [4]ToMMo, Tohoku Univ., [5]GSIS, Tohoku Univ., [6]Grad. Agri., Kyoto Univ.)				11:00
2aE10 *Arabidopsis* transcription factor SGR5 likely regulates stomatal movement and development Moeca Arai[1,2], Keiko Kigoshi[1], Kosuke Moriwaki[1], Kyoko Miyashita[1], Yoshimi Nakano[1], Sumire Fujiwara[1,2] ([1]Bioprod. Res. Inst., AIST, [2]Biol. Grad. Sch. Sci. Tech., Univ. Tsukuba)		2aG10 Functional analysis of the novel paternal imprinted gene *AEGEUS* in Arabidopsis endosperm Seiu Yamazaki[1], Yuko Wada[1], Komei Hori[1], Ryoko Ebihara[1], Tamaki Shitabo[1], Keishiro Yamada[1], Sho Yamaguchi[1], Kei Yamaguchi[1], Seiji Takayama[2], Toshiro Ito[1] ([1]Grad. Sch. of. Biol. Sci, Nara Inst. of Sci. and Tech., [2]Grad. Sch. of. Agri. Life Sci. Tokyo Univ.)	2aH10 Growth-inhibitory effects imposed by volatile organic compounds secreted by soil fungi *Trichoderma atroviride* Allen Yi-Lun Tsai[1,2], Nanaka Goya[3], Emre Demirer Durak[4], Shinichiro Sawa[1,2] ([1]Fac. Adv. Sci. Tech., Kumamoto Univ., [2]IRCAEB, Kumamoto Univ., [3]Fac. Sci., Kumamoto Univ., [4]Fac. Agri., Van Yüzüncü Yıl Univ.)				11:15

Ⓔ=Presentation in English

● Day 2, Sat., March 15, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Cell cycle/Cell division	Primary metabolism
11:30	2aA11 Light-responsive proton translocation across the cyanobacterial cytoplasmic membranes controls intracellular metabolisms Akito Machida[1], Akane Echigo[1], Kumiko Kondo[1,2], Toru Hisabori[1,3,4], Shinji Masuda[1] ([1]Dept. Life Sci. & Tech., Science Tokyo, [2]Lab. Chem. & Life Sci., IIR, Science Tokyo, [3]Res. Inst. Integr. Sci., Kanagawa Univ., [4]SOKENDAI)	2aB11 Regulatory mechanisms of DNA damage response and meristem maintenance via RNA m6A modification Ryosuke Matsuo[1], Akihito Mamiya[1], Kentaro P. Iwata[1], Yuuki Sakai[1], Takuya Sakamoto[2], Sachihiro Matsunaga[3], Yuki Kondo[4], Kimitsune Ishizaki[1], Hidehiro Fukaki[1] ([1]Grad. Sch. Sci., Kobe Univ, [2]Fac. Sci., Kanagawa Univ., [3]Grad. Sch. Frontier Sci., Univ. Tokyo, [4]Grad. Sch. Sci., Osaka Univ)	2aC11 ANAC082 Mediates Cell Proliferation in Response to Nucleolar Stress in Arabidopsis Iwai Ohbayashi[1,2], Tai-Yin Hsu[1], Po-Chen Chiang[1,2], Jenifer Faustine[1], Takafumi Miyashita[3], Shun Sasaki[4], Akitoshi Iwamoto[5], Masahiko Furutani[6], Hitoshi Onouchi[7], Munetaka Sugiyama[8] ([1]Dept. Life Sci., NCKU, [2]Inst. Tropical Plant Sci. and Microbiol., NCKU, [3]Dept. Biol. Sci., Grad. Sch. Sci., Kanagawa Univ., [4]Grad Sch. Agric., Hokkaido Univ., [5]Faculty Sci., Kanagawa Univ., [6]Dept. Earth System Sci., Fukuoka Univ., [7]Res. Faculty Agric., Hokkaido Univ., [8]Dep. Biol. Sci., Grad. Sch. Sci., Univ. Tokyo)	2aD11 Oxalate synthesis pathway in leaves of the oxalate-rich plant *Rumex obtusifolius* changes with light intensity Atsuko Miyagi[1], Wakana Sakuma[2], Hideki Murayama[1] ([1]Fac. Agri., Yamagata Univ., [2]Grad. Sch. of Agri., Yamagata Univ.)
11:45		2aB12 Ⓔ CDK inhibitor-mediated regulation of stemness in the *Arabidopsis* root cap Paktraporn Mekloy, Ye Zhang, Masaaki Umeda (Grad. Sch. Sci. & Tech., NAIST)	2aC12 Proposal of a novel transcriptional regulatory network for proper termination of stomatal development Keito Mineta[1], Hidekazu Iwakawa[1], Takamasa Suzuki[2], Moussa Benhamed[3], Masaki Ito[1] ([1]Grad. Sch. Nat. Sci. Tech., Kanazawa Univ, [2]Col. Biosci. Biotech., Chubu Univ, [3]Université Paris-Saclay)	

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/Signaling molecules	Reproduction	Plant-organism interaction B				
2aE11 Effects of autumn leaf color change on photosynthetic activity and temperature Kenji Takizawa[1,2,3] ([1]ABC, [2]NIBB, [3]SOKENDAI)		2aG11 Exploration of downstream genes regulating jasmonate-mediated tomato fruit set Yukako Nomura[1], Yu Lu[2], Yoshihito Shinozaki[2], Taiji Kawakatsu[3], Keiichiro Harada[1], Ryoichi Yano[4], Mikiko Kojima[5], Yumiko Takebayashi[5], Hitoshi Sakakibara[6], Hiroshi Ezura[2,7], Tohru Ariizumi[2,7] ([1]Grad. Sch. Life Environ Sci., Univ. Tsukuba, [2]Fac. Life Environ Sci., Univ. Tsukuba, [3]Institute of Agrobiological Sciences., NARO, [4]Advanced Analysis Center., NARO, [5]CSRS., RIKEN, [6]Grad. Sch. Bioagric Sci., Univ. Nagoya, [7]T-PIRC., Univ. Tsukuba)	2aH11 Effect of *F3'H* function on bacterial community in soybean rhizosphere Koshiro Matsumura[1], Hinako Matsuda[1], Kyoko Takamatsu[1], Shinichi Yamazaki[2,3], Hisabumi Takase[4], Yoshiharu Fujii[5], Yuichi Aoki[2], Nozomu Sakurai[6,7], Kazufumi Yazaki[1], Akifumi Sugiyama[1] ([1]RISH, Kyoto Univ., [2]ToMMo, Tohoku Univ., [3]RIKEN BRC, [4]Fac. Bioenviron. Sci., Kyoto Univ. Adv. Sci., [5]Fac. Agric. Tokyo Univ. Agric. Tech., [6]Nat. Inst. Genet., [7]KAZUSA DNA Res. Inst.)	Symposium S06 Multi-signal processing mechanisms: how plants simultaneously deal with different stimuli? (9:00–11:50)	Symposium S07 Advanced plant -omics in plant sustainability and environmental resilience (9:00–12:00)	Symposium S08 The Symposium of Phototrophic Microorganisms (9:00–12:00)	11:30
2aE12 Ⓔ Super pangenome of *Vitis* empowers identification of downy mildew resistance genes for grapevine improvement Li Guo[1], Xiangfeng Wang[1], Dilay Hazal Ayhan[1], Mohammad Saidur Rhaman[1], Ming Yan[1], Jianfu Jiang[2], Dongyue Wang[1], Wei Zheng[1], Junjie Mei[1], Wei Ji[1], Jian Jiao[1], Shaoyin Chen[1], Jie Sun[1], Shu Yi[1], Dian Meng[1], Jing Wang[1], Mohammad Nasim Bhuiyan[1], Guochen Qin[1], Linling Guo[1], Qingxian Yang[1], Xuenan Zhang[1], Haisheng Sun[1], Chonghuai Liu[2], Xing Wang Deng[1], Wenxiu Ye[1] ([1]Peking University Institute of Advanced Agricultural Sciences, [2]Zhengzhou Fruit Research Institute, Chinese Academy of Agricultural Sciences)		2aG12 *Arabidopsis CRK14 G*ene Encoding a Receptor-like Kinase Is Implicated in Global Proliferative Arrest Ryo Ishikawa[1], Sho Imai[1], Hikaru Hirozawa[1], Shingo Sugahara[1], Chisato Ishizaki[1], Mayu Higuchi[1], Yuma Matsushita[1], Takamasa Suzuki[2], Nobuyoshi Mochizuki[3], Akira Nagatani[3], Chiharu Ueguchi[1] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]Col. Biosci. Biotech., Chubu Univ., [3]Dep. Botany, Grad. Sch. Science, Kyoto Univ.)	2aH12 Ⓔ Resilience of soil bacterial microbiome in two *Pinus* species with distinct fire-adaptive strategies one to three years after wildfire Yen-Ju Chen[1], Ching-An Chiu[3], Chao-Li Huang[1,2] ([1]Institute of Tropical Plant Sciences and Microbiology, National Cheng Kung University, Taiwan, [2]Graduate Program in Translational Agricultural Sciences, National Cheng Kung University, Tainan, Taiwan, [3]Department of Forestry, National Chung Hsing University, Taichung, Taiwan)				11:45

Ⓔ=Presentation in English

● Day 3, Sun., March 16, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Environmental response A/ Physiological responses	Primary metabolism
09:00	3aA01 The function of PtSLC4-6 and PtSLC4-7 as chloroplast HCO_3^- transporters in the marine diatom Phaeodactylum tricornutum Miyuu Ninomiya, Kensuke Nakajima, Hermanus Nawaly, Yoshinori Tsuji, Yusuke Matsuda (Bioscience, Biological and Environmental Sciences, Kwansei Gakuin Univ)	3aB01 Apical stem cell divisions-mediated body symmetry diversity in 3D mechano-geometrical model Naoya Kamamoto, Koichi Fujimoto (Grad. Sch. Integr. Sci. Life, Hiroshima Univ.)	3aC01 Control of LZY3 protein stability by post-translational modifications is required for acute gravity sensing in roots Hiromasa Shikata[1,2], Shogo Mori[1], Moritaka Nakamura[1], Miyo T. Morita[1,2] ([1]NIBB, NINS, [2]Grad. Inst. for Adv. Stud., SOKENDAI)	3aD01 E The role of lysophosphatidic acid acyltransferase 1 in reproductive growth of *Arabidopsis thaliana* Van Nguyen, Niña Alyssa M Barroga, Yuki Nakamura (RIKEN-CSRS)
09:15	3aA02 Phenotypic analysis of TpBST, a candidate thylakoid-type bicarbonate transporter from the marine diatom *Thalassiosira pseudonana* Haruto Yamashita[1], Minori Nigishi[1], Ryosuke Amano[1], Ginga Shimakawa[2], Yoshinori Tsuji[1], Yusuke Matsuda[1] ([1]Grad. Sch. BioSci., Univ. Kwansei Gakuin, [2]Grad. Sch. Agri., Univ. Kobe)	3aB02 E *HWS* Gene Disruption Enlarges Phloem in Tomato Pedicels, Potentially Enhancing Sugar Transport Efficiency Fabien Lombardo[1], Tarek El Mestari[2], Oscar Witere Mitalo[3], Thomas Kirat[2], Muhammad Ijaaz Jondah[2], Julie Marsaudon[2], Norbert Bollier[4] ([1]Fac. Life Env. Sci., Univ. Tsukuba, [2]Grad. Sch. Sci. Tech, Bordeaux Univ., [3]Grad. Sch. Life Env. Sci., Univ. Tsukuba, [4]Fruit Bio. Path. Unit, Bordeaux Univ.)	3aC02 The role of amyloplast osmoregulation in gravisensing and gravitropism in roots and etiolated hypocotyls Atsushi Togaki, Chikako Tanaka, Kanako Yamasaki, Yoko Ishizaki, Takashi Shiina (Faculty of Agriculture Setsunan University)	3aD02 Extraplastidic fatty acid synthesis in the glaucophyte *Cyanophora paradoxa* Naoki Sato[1], Eri Ikemura[2], Mana Uemura[2], Koichiro Awai[2,3,4] ([1]Univ. of Tokyo, Grad. Sch. Arts Sci., [2]Shizuoka Univ., Grad. Sch. Integrated Sci. Technol., [3]Shizuoka Univ., Dept. Biol. Sci., [4]Shizuoka Univ., Res. Inst. Electronics)
09:30	3aA03 Metabolic regulation of mitochondria and chloroplast periphery in the marine diatom *Phaeodactylum tricornutum* Atsuki Osawa[1], Kazuya Nagata[1], Ginga Shimakawa[2], Yoshinori Tsuji[1], Yusuke Matsuda[1] ([1]Kwansei Gakuin University Bioscience, [2]Kobe University Agriculture science)	3aB03 *VAH* Negatively Influences Stem-cell Homeostasis in *Arabidopsis* Ryuji Tsugeki[1], Yoko Ikeda[2], Hitoshi Mori[3], Yuta Aoyagi[4], Hideki Hirakawa[5] ([1]Grad. Sch. Sci., Kyoto Univ., [2]IPSR, Okayama Univ., [3]Grad. Sch. Agric. Sci., Nagoya Univ., [4]Kazusa DNA Res. Inst., [5]Grad. Sch. Agri., Kyushu Univ.)	3aC03 The BRX domain of RLD exhibits diverse interaction modes with proteins Takeshi Nishimura[1], Yoshinori Hirano[2], Miyo T. Morita[1] ([1]National Institute for Basic Biology, Plant environmental responses, [2]University of Tokyo, Graduate school of pharmaceutical scienses)	3aD03 Metabolic engineering of free fatty acid production in the cyanobacterium *Synechococcus elongatus* PCC 7942 Tsubasa Furushima[1], Kotoha Nishimoto[1], Haruhiko Jimbo[1], Norifumi Yamamoto[2], Taro Kadowaki[1], Nobuyuki Takatani[3], Makiko Aichi[3], Kazutaka Ikeda[4], Tatsuo Omata[3], Yoshitaka Nishiyama[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Taisei Corp., [3]Col. Biosci. Biotech., Chubu Univ., [4]Kazusa DNA Res. Inst.)
09:45	3aA04 Chlorophyll fluorescence responses to CO_2 availability in plants performing crassulacean acid metabolism Koichi Kobayashi[1], Sae Bekki[1], Noriko Nogami[1], Kenji Suetsugu[2] ([1]Grad . Sch. Sci., Osaka Metropolitan Univ., [2]Grad . Sch. Sci., Kobe Univ.)	3aB04 E Actin Isovariant ACT2-Mediated Cellular AuxinHomeostasis Regulates Lateral Root Organogenesis in *Arabidopsis thaliana* Aya Hanzawa[1], Arifa Ahamed Rahman[1], Abidur Rahman[1,2] ([1]The United Graduate School of Agricultural Sciences, Iwate University, Japan, [2]Department of Plant Biosciences, Faculty of Agriculture, Iwate University, Morioka, Japan)	3aC04 Significance of organ straightening for growth-mediated movements in Arabidopsis Satoru Tsugawa[1], Haruka Takai[2], Satoko Okamura[3], Hiroki Yagi[3], Yuzuki Miyake[3], Koichi Toyokura[4], Ikuko Hara-Nishimura[3], Haruko Ueda[2,3] ([1]Fac. Sys. Sci., Akita Prefectural Univ., [2]Fac. Sci. Eng., Konan Univ., [3]Grad. Sch. Nat. Sci., Konan Univ., [4]Grad. Sch. Integr. Sci. Life, Hiroshima Univ.)	3aD04 Exploring the Link Between Photosynthetic Gene Enhancement and Lipid Accumulation in *Nannochloropsis oceanica* NIES-2145 Akira Takashima[1], Masako Iwai[2], Kumiko Okazaki[3], Nozomu Sakurai[4], Yoshinori Hasegawa[4], Atsushi Sakamoto[3], Hiroyuki Ohta[1,2,4], Mie Shimojima[1] ([1]Sch. Life Sci. Tech., Inst. Sci. Tokyo, [2]Phytolipid Technologies, [3]Grad. Sch. Integr. Sci. Life, Hiroshima Univ., [4]Kazusa DNA Res. Inst.)
				Specialized (secondary) metabolism
10:00	3aA05 A galactolipase is involved in the regulation of CCM under low-temperature conditions in *Synechococcus elongatus* PCC 7942 Nobuyuki Takatani[1], Kota Taniguchi[2], Yuya Senoo[3], Kazutaka Ikeda[3], Tatsuo Omata[1], Makiko Aichi[1] ([1]Col. of Biosci. and Biotech. Chubu Univ., [2]Grad. Sch. Biosci. and Biotech. Chubu Univ., [3]Dept. Appl. Genomics, Kazusa DNA Res. Inst.)	3aB05 Molecular mechanism of cell division orientation regulated by *SPIKE1* Koichi Toyokura[1], Naoya Kamamoto[1], Koichi Fujimoto[1], Yoshihisa Oda[2], Tatsuo Kakimoto[3], Haruko Ueda[4], Yrjo Helariutta[5], Makoto Kusaba[1] ([1]Grad. Sch. Integr. Sci. Life, Hiroshima Univ., [2]Grad. Sch. Sci., Nagoya Univ., [3]Grad. Sch. Sci., Osaka Univ., [4]Fac. Sci. Eng., Konan Univ., [5]Fac. Biol. Environ. Sci.Univ. Helsinki)	3aC05 Characterization of a novel GLVs-insensitive mutant exhibiting reduced cytosolic calcium signals in Arabidopsis Chieko Terashima[1], Takuya Uemura[2], Shunnosuke Tatsuzawa[3], Yuri Aratani[1], Masatsugu Toyota[1] ([1]Grad. Sch. Sci and Eng., Saitama Univ., [2]Dept. Biol. Sci. Technol., Tokyo Univ. Sci., [3]Fac. Sci., Saitama Univ)	3aD05 Biochemical characterization of benzaldehyde dehydrogenase involved in petunia floral scent Takao Koeduka[1], Karin Itoh[1], Shin-ichi Ozaki[1], Tomohiko Tsuge[2], Sakihito Kitajima[3] ([1]Yamaguchi Univ., [2]Kyoto Univ., [3]Kyoto Instit. of Tech.)
10:15	3aA06 Impact of light-induced NADP pool fluctuations on the dynamics of NAD-capped RNAs in Arabidopsis Shinnosuke Hashida[1], Yuta Aoyagi[2], Hideki Hirakawa[3], Atsushi Toyoda[4], Maki Kawai-Yamada[5] ([1]Bio. Environ., CRIEPI, [2]Dep. Front. Res. Dev., Kazusa DNA Res. Inst., [3]Grad. Sch. Agric., Kyushu Univ., [4]AGC. NIG., [5]Grad. Sch. Sci. Eng., Saitama Univ.)	3aB06 A novel wound defense strategy, Cells Lock, as an initial response to endogenous and exogenous damage in root Kosuke Mase[1], Honomi Mizuno[1], Keigo Nakamura[1], Koki Tomida[1], Nanari Furukawa[1], Shiho Ueno[1], Takamasa Suzuki[2], Soichi Inagaki[3], Atsushi Morikami[1], Hironaka Tsukagoshi[1] ([1]Faculty of Agr., Univ. Meijo, [2]Biosci. Biotech., Univ. Chubu, [3]Grad. Sch. Sci., Univ. Tokyo)	3aC06 Development of three-dimensional analysis method for long-range calcium signal propagations Hiraku Suda[1], Takuma Hagihara[1], Hiroki Asakawa[1], Masatsugu Toyota[1,2,3] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]SunRiSE, Suntory Fdn. Life Sci., [3]Coll. Plant Sci. Technol., Huazhong Agric. Univ.)	3aD06 Identification of cytochrome P450 genes involved in tricyclic coumarin biosynthesis in *Angelica keiskei* Nodoka Shinya[1], Junwen Han[1], Kenji Miura[2], Masahiko Taniguchi[3], Akifumi Sugiyama[1], Kazufumi Yazaki[1], Ryosuke Munakata[1] ([1]RISH, RISH, Kyoto Univ., [2]Life and Environ. Sci., Univ. of Tsukuba, [3]Faculty of Pharmacy, OMPU)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/ Signaling molecules	New technology	Plant-organism interaction B				
3aE01 Genetic analyses of short-term heat tolerance in Arabidopsis Mire Yanagihara[1], Yako Takahashi[1], Takamasa Suzuki[2], Juntaro Negi[3], Tomoki Obata[3], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Dept. of Biol. Chem., Chubu Univ., [3]Dept. of Sci., Kyushu Univ.)	3aF01 Characterization and functional analyses of DOG1-dependent ABA signaling cascade Noriyuki Nishimura[1], Wataru Tsuchiya[2], Ryoichi Yano[2], Nahomi Suzuki[1], Takashi Hirayama[3], Toshimasa Yamazaki[2] ([1]IAS., NARO, [2]ACC., NARO, [3]IPSR., Okayama Univ)	3aG01 Isolation of compounds that inhibit flower senescence of Japanese morning glory by screening based on a wheat cell-free protein synthesis system Akira Nozawa[1], Kenichi Shibuya[2], Tatsuya Sawasaki[1] ([1]PROS, Ehime Univ., [2]NARO)	3aH01 The interaction between *Lotus japonicus* and *Rhizobium* sp. in the early stages of nodule symbiosis Yasuyuki Kawaharada[1,2,3], Mao Sasaki[2], Yuhei Chiba[3], Momoko Hayashi[1] ([1]Agric., Iwate Univ., [2]Grad. Sch. of Arts and Sci., [3]UGAS, Iwate Univ.)		Symposium S09 Singularity of the research on light-harvesting antenna complexes (9:00–12:00)	Symposium S10 Spatial sensing, design, production control and functional analysis of plant molecules (9:00–12:00)	09:00
3aE02 Analysis of the long-term heat tolerant mechanism of *Arabidopsis thaliana* Berg-1 Asumi Kitashima, Goro Masuda, Izumi Yotsui, Yoichi Sakata, Teruaki Taji (Dept. of Biosci., Tokyo Univ. of Agri)	3aF02 Ⓔ The cytokinin biosynthesis gene, IPT3, plays a key role in plant growth acclimation to a fluctuating nitrate environment Fanny Bellegarde[1,2], Takatoshi Kiba[1], Hitoshi Sakakibara[1,3] ([1]Graduate School of Bioagricultural Sciences, Nagoya University, [2]Institute for Advanced Research, Nagoya University, [3]RIKEN Center for Sustainable Resource Science, Tsurumi, Yokohama)	3aG02 Development of genome editing system in rice using a modified TiD (TiD-X) Shota Muromoto[1], Hiromichi Ae[2], Kazuya Marui[2], Kohei Kawaguchi[1], Naoki Wada[2], Keishi Osakabe[2], Yuriko Osakabe[1] ([1]Sch. of Life Sci. & Tech., Science Tokyo, [2]Grad. Sch. of Tech., Ind. & Soc. Sci., Tokushima Univ.)	3aH02 Analysis of regulatory mechanism of rhizobial endosymbiosis depending on N_2-fixing levels of rhizobia Haruka Arashida[1,2], Tomomi Nakagawa[2], Shun Hashimoto[1], Kazuhiko Saeki[2], Masayoshi Kawaguchi[2], Shusei Sato[1] ([1]Grad. Sch. of Life Sci. Tohoku univ, [2]NIBB)				09:15
3aE03 Functional analysis of the *sensitive to long-term heat7* (*sloh7*) mutant of *Arabidopsis thaliana* Ririka Nosuga[1], Akito Hosoi[2], Takamasa Suzuki[3], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]NODAI Genome Research Center, [3]Dept. of Biological Chemistry, College of Bioscience and Biotechnology, Chubu Univ.)	3aF03 Cytokinin receptor AHK3 controls the long-distance transport of cytokinin Kota Monden[1], Takamasa Suzuki[2], Mikiko Kojima[3], Yumiko Takebayashi[3], Takatoshi Kiba[3,4], Hitoshi Sakakibara[3,4], Tsuyoshi Nakagawa[5], Takushi Hachiya[5] ([1]Gra. Sch. Nat. Sci., Shimane Univ., [2]Gra. Sch. Biosci. Biotech., Chubu Univ., [3]CSRS, Riken, [4]Gra. Sch. Bioagr. Sci., Nagoya Univ., [5]Dept. Mol. Genet., Int. Gent. Sci. Res., Shimane Univ.)	3aG03 Development of transcriptional regulation tools for *AtNCED3* using TiD-X Kugo Goto[1], Satoshi Kidokoro[1], Tadaomi Furuta[1], Naoki Wada[2], Keishi Osakabe[2], Yuriko Osakabe[1] ([1]Sch. of Life Sci. & Tech., Science Tokyo, [2]Grad. Sch. of Tech., Ind. & Soc. Sci., Tokushima Univ)	3aH03 Ⓔ Functional regulation of CYCLOPS is a key to the efficient dual symbiosis Akihiro Yamazaki[1], Akira Akamatsu[1,2], Naoya Takeda[2], Akira Miyahara[3], Miwa Nagae[3], Yosuke Umehara[3], Makoto Hayashi[1] ([1]CSRS, RIKEN, [2]Sch. Biol. Env. Sci., KGU, [3]NIAS)				09:30
3aE04 Genetic and physiological analyses of *sensitive to long term heat 2* (*sloh2*) mutant of *Arabidopsis thaliana* Haruomi Yoshino[1], Ryou Yamaguchi[1], Akito Hosoi[2], Takamasa Suzuki[3], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]NODAI Genome Research Center, [3]Dept. of Biological Chemistry, College of Bioscience and Biotechnology, Chubu Univ.)	3aF04 Elucidation of the mode of action of CK-like compounds produced by *fas* operon Mika Yoshino[1], Surjana Alicia[1], Mikiko Kojima[2], Kensuke Kouki[1], Toshio Nishikawa[1], Hitoshi Sakakibara[1,2] ([1]Grad. Sch. Bio. Sci., Nagoya Univ., [2]RIKEN CSRS)	3aG04 Double step screening using endogenous marker improves relative gene targeting efficiency in Arabidopsis Daisuke Miki (CAS Center for Excellence in Molecular Plant Sciences, Chinese Academy of Sciences)	3aH04 Molecular characteristics and evolutionary basis of NIN transcription factor Momona Noda[1], Shohei Nosaki[1,2], Hiroki Onoda[3], Momoyo Ito[1], Takuya Suzaki[1,2] ([1]Fac. of Life and Env. Sci., Univ. Tsukuba, [2]T-PIRC., Univ. Tsukuba, [3]NUSR, Nagoya Univ)				09:45
3aE05 Analysis of *sensitive to long-term heat 29* (*sloh29*) mutant of Arabidopsis Kei Kawakami[1], Akito Hosoi[2], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Nodai Genome Research Center)	3aF05 The analysis of the regulatory mechanism for SLR1, a rice DELLA protein, by a glucosyltransferase SPINDLY in rice Hideki Yoshida, Shunsuke Nishio, Makoto Matsuoka (IFeS, Fukushima Univ.)	3aG05 Generation of viable hypomorphic mutant alleles for genes causing lethal mutations using genome editing Mika Yoshimura, Takashi Ishida (Kumamoto Univ, FAST)	3aH05 Ⓔ Rhizobial infection-specific accumulation of phosphatidylinositol 4,5-bisphosphate inhibits the excessive infection of rhizobia in *Lotus japonicus* Akira Akamatsu[1,2], Toshiki Ishikawa[3], Hiroto Tanaka[2], Yoji Kawano[4], Makoto Hayashi[1], Naoya Takeda[2] ([1]RIKEN CSRS, [2]Grad. Sch. of Bio. and Env. Sci. Kwansei gakuin Univ., [3]Fac. of Sci. and Tech. Saitama Univ., [4]Okayama Univ. IPSR)				10:00
3aE06 The MKK3-MAPK Cascade Modulates Seed Germination by Integrating Temperature and After-ripening Signals Masahiko Otani[1], Ryo Tojo[1], Sarah Regnard[2], Lipeng Zheng[1], Kazuya Ichimura[3], Jean Colcombet[2], Naoto Kawakami[1] ([1]Sch. Agr., Meiji Univ., [2]IPS2, [3]Fac. Agr., Kagawa Univ.)	3aF06 Unraveling the biosynthetic pathway of gibberellin-related bioactive molecules in the liverwort *Marchantia polymorpha* Maiko Okabe[1], Rui Sun[1,3], Konoka Shimada[1], Yoshihiro Yoshitake[1,2], Yoko Kamata[2], Shogo Kawamura[1], Kaori Suzuki[1], Eita Shimokawa[1], Yukiko Yasui[1,2], Shohei Yamaoka[1,2], Kengo Hayashi[3], Toshiaki Ishida[3], Kiyoshi Mashiguchi[3], Shinjiro Yamaguchi[3], Takayuki Kohchi[1,2] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]Fac. Agric., Kyoto Univ., [3]Inst. Chem. Res., Kyoto Univ.)	3aG06 Adding new commercial value to melon through genome-editing Kaoru Urano[1], Kentaro Sasaki[1], Naozumi Mimida[2], Satoko Nonaka[3], Hiroshi Ezura[2,3], Ryozo Imai[1] ([1]Inst. Agro. Sci., NARO, [2]Sanatech Life Science Co., Ltd., [3]Tsukuba Plant Inno., Univ. Tsukuba)	3aH06 Mechanism Controlling the Periodic Cytokinin Responses in *Lotus japonicus* Root Nodule Symbiosis Takashi Soyano[1,2], Masayoshi Kawaguchi[1,2] ([1]NIBB, [2]SOKENDAI)				10:15

Ⓔ=Presentation in English

● Day 3, Sun., March 16, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Environmental response A/ Physiological responses	Specialized (secondary) metabolism
10:30	3aA07 Regulation of photosynthetic electron transport in the amphibious plant *Hygrophila difformis* under submerged conditions Genki Horiguchi, Ko Noguchi (Sch. Life Sci, Tokyo univ. Pharm. Life Sci.)	3aB07 Involvement of ROS in short root phenotype in a membrane traffic factor mutant, *patrol1* Wakana Oya, Hitoshi Sakakibara, Mimi Hashimoto-Sugimoto (Bioagr. Sci, Nagoya Univ.)	3aC07 Functional analysis of a novel touch-sensitive mutant with enhanced cytosolic calcium signals in *Arabidopsis* Taira Fukui[1], Takuya Uemura[2], Hiroki Asakawa[3], Masatsugu Toyota[3,4,5] ([1]Fac. Sci., Saitama Univ, [2]Dept. Biol. Sci. Technol., Tokyo Univ. Sci., [3]Dept. Biochem. Mol. Biol., Saitama Univ., [4]SunRiSE, Suntory Fdn. Life Sci., [5]Coll. Plant Sci. Technol., Huazhong Agric. Univ.)	3aD07 Molecular mechanism of interspecific diversity in the isoprene-emission capacity in Fagaceae plants Sora Koita[1], Ryosuke Munakata[1], Kenji Fukushima[2], Atsushi Nagano[3,4], Takuya Saito[5], Yuka Ikezaki[6], Akiko Satake[6], Kenji Miura[7], Akifumi Sugiyama[1], Kazufumi Yazaki[1] ([1]RISH, Kyoto Univ., [2]NIG, [3]Fac. Agric., Ryukoku Univ., [4]IAB, Keio Univ., [5]NIES, [6]Fac. Sci., Kyushu Univ., [7]Inst. Life and Environ. Sci., Univ. of Tsukuba)
10:45	3aA08 Genomic analysis of dark-adapted variants isolated prolonged dark heterotrophic cultivation in the cyanobacterium *Leptolyngbya boryana* Kouki Kakinuma[1], Kazuma Uesaka[2], Mari Banba[2], Haruki Yamamoto[1,2], Shinichi Takaichi[3], Kunio Ihara[4], Yuichi Fujita[1,2] ([1]Sch Bioagricultural Sci., Nagoya Univ., [2]Grad. Sch. Bioagricultural Sci., Univ. Nagoya, [3]Dpt. Mol. Microbiol., Fac. Life Sciences, Tokyo Univ. Agr., [4]Center for Gene Research, Univ. Nagoya)	3aB08 MYB transcription factors control the development of the lateral root primordium Yuta Uemura[1], Takamasa Suzuki[2], Atsushi Morikami[1], Hironaka Tsukagoshi[1] ([1]Grad. Sch. agriculture., Univ. Meijo, [2]College of Bioscience and Biotechnology, Univ. Chubu)	3aC08 Electrophysiological Analysis of Action Potentials and Calcium Waves in *Drosera rotundifolia* Shoji Segami[1,2], Peng Chen[2], Riku Matsuda[3], Nagisa Sugimoto[4], Shoko Ohi[1], Hiraku Suda[5], Yoshikatsu Sato[4], Masatsugu Toyota[5], Mitsuyasu Hasebe[1,2] ([1]NIBB, [2]SOKENDAI, [3]Grad. Sch. Sci., Nagoya Univ., [4]ITbM, Nagoya Univ., [5]Grad. Sch. Sci. Eng., Saitama Univ.)	3aD08 E Molecular evolution of the UbiA prenyltransferase family in citrus Tamara Klett[1], Shuhei Matsushita[1], Takashi Akagi[2], Tetsuya Matsukawa[3,4], Alain Hehn[5], Akifumi Sugiyama[1], Kazufumi Yazaki[1], Ryosuke Munakata[1] ([1]RISH, Kyoto Univ., [2]Nihon BioData, [3]The Exp Farm, Kindai Univ., [4]BOST, Kindai Univ., [5]Univeristé de Lorraine-INRAe)
11:00	3aA09 What effects does a complete lack of phosphatidylglycerol in etioplasts? Manato Kawamukai[1], Akiko Yoshihara[2], Keiko Kobayashi[3], Noriko Nagata[3], Sho Fujii[4], Koichi Kobayashi[5] ([1]Sch. Sci., Osaka Pref. Univ., [2]Grad. Sch. Sci., Osaka Metro. Univ., [3]Fac. Sci., Japan Women's Univ., [4]Fac. Agr., Hirosaki. Univ., [5]Fac. Sci., Osaka Metro. Univ.)	3aB09 [Cancelled]	3aC09 Roles of *AS2* genes in trap leaf formation in *Dionaea muscipula* Hiroki Asakawa[1], Hiraku Suda[1], Shoji Segami[2,3], Mitsuyasu Hasebe[2,3], Masatsugu Toyota[1,4,5] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Div. Evol. Biol., NIBB, [3]Sch. Life Sci., SOKENDAI, [4]SunRiSE, Suntory Fdn. Life Sci., [5]Coll. Plant Sci. Technol., Huazhong Agric. Univ.)	3aD09 Discovery of a new dioxygenase involved in jatrorrhizine biosynthesis in *Coptis japonica* Amika Takamatsu[1], Shunsuke Kasai[1], Ryosuke Sugiyama[1,2,5], Yuta Koseki[3], Yasuyuki Yamada[3,4], Mami Yamazaki[1,5] ([1]Grad. Sch. Pharm. Sci., [2]JST PRESTO, [3]TSUMURA & CO., [4]Kobe Pharm. Univ., [5]PMSC, Chiba Univ.)
11:15	3aA10 Investigation of CP12-3/GAPDH/AspAT5 tripartite complex formation Koki Nakano, Irori Takeuchi, Seika Hirai, Kohei Oka, Tsuyoshi Furumoto (Agr., Univ. Ryukoku)	3aB10 Investigation of the regulatory mechanisms to adjust root bending angles to various gravitropic directions Tatsuaki Goh[1], Hikaru Kasatani[1], Satoru Tsugawa[2], Yuki Soma[1], Takaaki Yonekura[3], Keiji Nakajima[1] ([1]Div. Biol. Sci., NAIST, [2]Fac. Sys. Sci. Tech., Akita Pref. Univ., [3]Grad. Sch. Sci., Univ. Tokyo)	3aC10 Light-dependent regulation of branch formation, phototropic responses, and chloroplast movement in *Undaria pinnatifida* (Phaeophyceae) gametophytes Shinya Yoshikawa[1], Iori Kato[1], Tsunami Hiyama[1], Chikako Nagasato[2] ([1]Mar. Sci. & Tech., Pref. Univ. Fukui, [2]Field Sci. Ctr. N. Biosphere, Hokkaido Univ.)	3aD10 Functional Characterization of Oxidases Related to Coumarin Metabolism Found by Organ-specific Transcriptome of Grapefruit Kimiyasu Ichikawa[1], Shuhei Matsushita[1], Nodoka Shinya[1], Tetsuya Matsukawa[2,3], Kenji Miura[4], Akifumi Sugiyama[1], Kazufumi Yazaki[1], Ryosuke Munakata[1] ([1]RISH, Kyoto Univ., [2]The Exp Farm, Kindai Univ., [3]BOST, Kindai Univ., [4]Life Environ Sci, Tsukuba Univ.)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/ Signaling molecules	New technology	Plant-organism interaction B				
3aE07 The long coiled-coil protein PICL is complex formation by elevated ambient temperatures Takato Matsumoto, Tsuyoshi Furumoto (Grad. Agr., Univ. Ryukoku)	3aF07 Spatio-temporal analysis of phytohormones regulating stem elongation in *Arabidopsis thaliana* ① Kosuke Matsumoto[1], Mio Mizushima[1], Mikiko Kojima[2], Yumiko Takebayashi[2], Hitoshi Sakakibara[1,2], Atsushi Nagano[3], Jutarou Fukazawa[4], Ken-ichi Kurotani[5], Michitaka Notaguchi[5,6], Miya Mizutani[7], Naoyuki Uchida[8], Hiroshi Takagi[9], Motoyuki Ashikari[5] ([1]Graduate School of Biogricultural Sciences, Nagoya University, [2]RIKEN Center for Sustainable Resource Science, [3]Faculty of Agriculture, Ryukoku University, [4]Department of Biological Science, Graduate School of Science, Hiroshima University, [5]Bioscience and Biotechnology Center, Nagoya University, [6]Department of Science, Kyoto university, [7]Graduate School of Science and Technology, Nara Institute of Science and Technology, [8]Center for Gene Research, Nagoya University, [9]Department of Science, Nagoya university)	3aG07 Development of a Technology for Induction of Random Mutagenesis Specifically to Plant Organellar Genomes and Isolation of Mutants Nanami Kosaka[1], Yoshiki Harada[1], Issei Nakazato[1], Miki Okuno[2], Takehiko Itoh[3], Nobuhiro Tsutsumi[1], Shin-ichi Arimura[1] ([1]Grad. Sch. Agri. and Life Sci., Univ. Tokyo, [2]Sch. Med., Univ. Kurume, [3]Sch. Life Sci. and Tech., Inst. Science Tokyo)	3aH07 Shoot-applied spermine suppresses susceptibility to rhizobial infection in *Lotus japonicus* Sho Okamoto[1], Kensuke Kawade[2] ([1]Faculty of Science, Saitama University, [2]Graduate School of Science and Engineering, Saitama University)		Symposium S09 Singularity of the research on light-harvesting antenna complexes (9:00–12:00)	Symposium S10 Spatial sensing, design, production control and functional analysis of plant molecules (9:00–12:00)	10:30
3aE08 The warm temperature insensitive mutant ACO3 in Arabidopsis thaliana Moe Masumoto[1], Rin Takeuchi[2], Ryo Takara[2], Tsuyoshi Furumoto[2] ([1]Grad. Agr., Univ. Ryukoku, [2]Agr., Univ. Ryukoku)	3aF08 Spatio-temporal analysis of phytohormones regulating stem elongation in *Arabidopsis thaliana* ② Mio Mizushima[1], Kosuke Matsumoto[1], Mikiko Kojima[2], Yumiko Takebayashi[2], Hitoshi Sakakibara[1,2], Atsushi Nagano[3], Jutarou Fukazawa[4], Ken-ichi Kurotani[5], Michitaka Notaguchi[5,6], Miya Mizutani[7], Naoyuki Uchida[8], Motoyuki Ashikari[9] ([1]Graduate School of Biogricultural Sciences, Nagoya University, [2]RIKEN Center for Sustainable Resource Science, [3]Faculty of Agriculture, Ryukoku University, [4]Department of Biological Science, Graduate School of Science, Hiroshima University, [5]Bioscience and Biotechnology Center, Nagoya University, [6]Department of Science, Kyoto university, [7]Graduate School of Science and Technology, Nara Institute of Science and Technology, [8]Center for Gene Research, Nagoya University, [9]Department of Science, Nagoya university)	3aG08 Flowering induction by functional peptide-mediated *FT* mRNA delivery Masaki Odahara[1,2], Maai Mori[1], Shougo Ishio[3], Satoshi Kogawara[3], Keiji Numata[1,2] ([1]CSRS, RIKEN, [2]Grad. Sch. Eng., Kyoto Univ., [3]Tsukuba Res. Inst., Sumitomo Forestry)	3aH08 Analysis of leaf development in AON-defective mutants of *Lotus japonicus* Yuri Tagawa[1], Kensuke Kawade[2] ([1]Faculty of Science, Saitama University, [2]Graduate School of Science and Engineering, Saitama University)				10:45
3aE09 Analysis for molecular functions of plant progesterone and its receptor candidates Yuka Kinugasa[1], Ayumi Yamagami[1], Rira Daibo[1], Ayaka Uebayashi[2,3], Setsuko Shimada[2], Mayumi Iino[2], Takahito Nomura[4], Masaaki Sakuta[3], Tadao Asami[5], Takao Yokota[6], Takeshi Nakano[1] ([1]Grad. Sch. Bio., Univ. Kyoto, [2]RIKEN · CSRS, [3]Grad. Sch. Humanities and Sci., Univ. Ochanomizu, [4]Ctr. Bio., Univ. Utsunomiya, [5]Grad. Sch. Agri., Univ. Tokyo, [6]Dept. Bio., Univ. Teikyo)	3aF09 Analysis of SA & JA Dose-dependent responses and development of transcriptomic biomarkers Atsuki Tomita[1,2], Taro Maeda[2,3], Natsumi Mori-Moriyama[3], Yasuyuki Nomura[3], Yuko Kurita[4], Makoto Kashima[5], Shigeyuki Betsuyaku[6], Atsushi Nagano[2,6] ([1]Graduate School of Media & Governance, Keio Univ., [2]IAB, Keio Univ., [3]Res. Inst. Food Agr. , Ryukoku Univ., [4]Fac. Agr., Tokyo Univ., [5]Faculty of Sci., Toho Univ., [6]Fac. Agr., Ryukoku Univ.)	3aG09 SSBD: Global Sharing of Bioimaging Data Koji Kyoda[1], Hiroya Itoga[1], Yuki Yamagata[2,3], Emi Fujisawa[1], Miguel Miranda[1], Haruna Yamamoto[1], Ko Sugawara[1], Yukako Tohsato[1,4], Shuichi Onami[1,2] ([1]RIKEN BDR, [2]RIKEN R-IH, [3]RIKEN BRC, [4]Ritsumeikan University)	3aH09 Metabolic dynamics of the leaves in the *Lotus japonicus* over-nodulation mutants Haruka Kishi[1], Kensuke Kawade[2] ([1]Faculty of Science, Saitama University, [2]Graduate School of Science and Engineering, Saitama University)				11:00
3aE10 Analysis of heat stress tolerance using Arabidopsis 9-LOX/AOS overexpressing plants Mie Shimojima[1], Mariko Kawahigashi[1], Takayuki Wakamatsu[1], Hiroyuki Ohta[1], Kazuma Sakoda[2], Atsushi Sakurai[2], Sousuke Imamura[2] ([1]Sch. Life Sci. Tech., Inst. Sci. Tokyo, [2]Space Environment and Energy Laboratories, NTT Corporation)	3aF10 Arabidopsis CYP78A controls leaf senescence in a non-cell autonomous manner Takashi Nobusawa, Ayane Fujita, Makoto Kusaba (Grad. Sch. Integr. Sci. Life, Hiroshima Univ.)	3aG10 Ultra-Thin Transparent Biopotential Electrodes Conformable to Leaf Surface for Plant Health Monitoring Yusuke Hori, Tatsuhiro Horii, Shinji Masuda, Toshinori Fujie (Sch. Life Sci. and Tech., Science Tokyo)	3aH10 Transient gene silencing in arbuscular mycorrhizal fungi without host plants Yidan Fu, Zijie Li, Hiromu Kameoka (CAS CEMPS)				11:15

Ⓔ=Presentation in English

● Day 3, Sun., March 16, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Environmental response A/ Physiological responses	Specialized (secondary) metabolism
11:30		3aB11 Functional analysis of *ArabidopsisPIP5K* genes involved in root hair cell polarity Mariko Kato[1], Machiko Watari[1,2], Tomohiko Tsuge[1], Takashi Aoyama[1] ([1]Inst. Chem. Res., Kyoto Univ., [2]National University of Singapore)	3aC11 X-ray CT analysis of Arabidopsis leaf movement under different conditions of light exposure Maika Hayashi[1], Koki Sonoda[1], Tadashi Kunieda[1,2], Makito Haruta[3], Yoshito Otake[4], Hirokazu Kato[4], Hiroyuki Shima[5], Taku Demura[1,2] ([1]Div. Biol. Sci., NAIST, [2]CDG, NAIST, [3]Fac. Sci. Eng., Chitose Inst. Sci. Tech., [4]Div. Info. Sci., NAIST, [5]Dept. Env. Sci., Univ. Yamanashi)	3aD11 Screening of genes involved in the sequestration of lipophilic specialized metabolites in citrus oil cavity Yoko Kamata[1], Shuhei Matsushita[1], Kimiyasu Ichikawa[1], Taketo Kuboi[1], Tetsuya Matsukawa[2,3], Kenji Miura[4], Yuki Tobimatsu[1], Kazufumi Yazaki[1], Akifumi Sugiyama[1], Ryosuke Munakata[1] ([1]RISH, Kyoto Univ., [2]The Exp Farm, Kindai Univ., [3]BOST, Kindai Univ., [4]Life Environ Sci, Tsukuba Univ.)
11:45			3aC12 Functional analysis of the Raf-like kinase VIK involved in light-induced stomatal opening Taku Sakakibara[1], Miya Mizutani[2], Maki Hayashi[3], Yoshikatsu Matsubayashi[1], Toshinori Kinoshita[1,4] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]Grad. Sch. Bio., NAIST, [3]Grad. Sch. Life Sci., Univ. Tohoku, [4]WPI-ITbM, Univ. Nagoya)	3aD12 Metabolomic analysis of tissue-specificity of specialized metabolites in *Pueraria lobata* Huang Zhixuan, Shinichiro Komaki, Mutsumi Watanabe, Takayuki Tohge (Grad. Sch. Sci., Tech., NAIST)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Plant hormones/ Signaling molecules	New technology	Plant-organism interaction B				
3aE11 Functional analysis of OsHsfA1a, a rice transcription factor in the heat shock response Itsuki Tanaka[1], Jiajun Mo[1], Moeko Noguchi[1], Naohiko Ohama[1], Daisuke Todaka[1], Akito Hosoi[2], Teruaki Taji[3], Kazuo Shinozaki[4], Kazuko Yamaguchi-Shinozaki[1,5], Junya Mizoi[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]NODAI GRC, [3]Dept. Biosci. Tokyo Univ. Agr., [4]RIKEN CSRS, [5]Inst. Agr. Life Sci., Tokyo Univ. Agr.)			3aH11 Pollen tube rupture mechanism caused by bacteria living in flower nectary Yoshinobu Kato[1,2], Hiroki Miura[1], Seiji Takayama[1], Sota Fujii[1,3] ([1]Grad. Sch. Agric. Life Sci., Univ. Tokyo, [2]JST PRESTO, [3]Suntory SunRiSE)		Symposium S09 Singularity of the research on light-harvesting antenna complexes (9:00–12:00)	Symposium S10 Spatial sensing, design, production control and functional analysis of plant molecules (9:00–12:00)	11:30
3aE12 Analysis of cold stress-responsive degradation of CCA1 and LHY in Arabidopsis Satoshi Kidokoro[1], Naoki Okawa[2], Fuminori Takahashi[3,4], Junya Mizoi[2], Yuriko Osakabe[1], Kazuo Shinozaki[4], Kazuko Yamaguchi-Shinozaki[2,5] ([1]Sch. of Life Sci. and Tech., Science Tokyo, [2]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [3]Faculty of Advanced engineering, Tokyo Univ. of Science, [4]Center for Sustainable Resource Science, RIKEN, [5]Inst. Agr. Life Sci., Tokyo Univ. Agr.)			3aH12 Dual mode of coral bleaching: heat-stress inactivates photosynthesis of endosymbiotic algae and algal digestion of the coral host Ginga Shimakawa[1,2], Kako Aoyama[3,4], Toshiyuki Takagi[3] ([1]Grad. Sch. Agric. Sci., Kobe Univ., [2]Res. Cent. Solar Energ. Chem., Osaka Univ., [3]AORI, Univ. Tokyo, [4]GSFS, Univ. Tokyo)				11:45

● Day 3, Sun., March 16, PM (13:30–16:30)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Environmental response A/ Physiological responses	Specialized (secondary) metabolism
13:30	3pA01 Analysis of the effects of polysulfide on the photomorphogenesis of Arabidopsis thaliana Otoa Matsui[1], Shingo Kasamatsu[2], Hideshi Ihara[2], Tatsuru Masuda[3], Takayuki Shimizu[1] ([1]Faculty of Science, Nawa Women's University, [2]Graduate School of Science, Osaka Metropolitan University, [3]Graduate School of Arts and Sciences, The University of Tokyo)	3pB01 What Spatial Cues Are Required for Ectopic Myrosin Cell Differentiation via *FAMA* Overexpression? Tatsuyoshi Nakanishi[1], Tatsuaki Goh[1,2], Keiji Nakajima[1], Makoto Shirakawa[1,2], Toshiro Ito[1] ([1]Graduate School of Science and Technology, Nara Institute of Science and Technology, [2]Precursory Research for Embryonic Science and Technology, Japan Science and Technology Agency)	3pC01 Functional analysis of the regulatory network for growth promotion induced by enhanced rock weathering in Arabidopsis Minoru Ueda[1,2], Daisuke Todaka[1], Maho Tanaka[1,2], Satoshi Takahashi[1,2], Junko Ishida[1,2], Tokihiro Ikeda[3], Keiko Suzuki[4], Misako Miwa[5], Matsuyama Shigeo[5], Atsushi Nagano[6,7], Hidehiko Kikuno[8], Motoaki Seki[1,2,9,10] ([1]RIKEN CSRS, [2]RIKEN CPR, [3]RIKEN RNC, [4]RIKEN CEMS, [5]Grad. Sch. Eng., Tohoku Univ., [6]Fac. of Agr., Ryukoku Univ., [7]IAB, Keio Univ., [8]TUA Miyako Subtropical Training and Research Farm, [9]KIBR, Yokohama City University, [10]Grad. Sch. Sci. Eng., Saitama Univ.)	3pD01 Visualization of the spatial distribution of plant specialized metabolites in *Arabidopsis thaliana* using imaging mass spectrometry Tetsuya Mori, Noriko Takeda, Tomoko Nishizawa, Kiminori Toyooka, Masami Hirai (RIKEN CSRS)
13:45	3pA02 E Analysis of transcriptional regulatory mechanisms in response to polysulfide and reactive oxygen species utilizing purple photosynthetic bacteria Shuxian Wang[1], Yosuke Seto[2], Yutaro Kumagai[3], Masaru Hashimoto[4], Shintaro Maeno[5], Yasuhiro Gotoh[6], Tetsuya Hayashi[7], Tatsuru Masuda[8], Takayuki Shimizu[1] ([1]Faculty of Science, Nara Women's University, [2]Division of Experimental Chemotherapy, Cancer Chemotherapy Center, [3]Department of Life Science and Biotechnology, National Institute of Advanced Industrial Science and Technology, [4]Faculty of Agriculture, The University of Tokyo, [5]Advanced Genomics Center, National Institute of Genetics, [6]Advanced Genomics Center, National Institute of Genetics, [7]Graduate School of Medical Sciences, Kyusyu University, [8]Graduate School of Arts and Sciences, The University of Tokyo)	3pB02 E Tissue-specific TSS shift of *APL* regulates phloem development in *Arabidopsis* Hiroshi Takagi[1,2], Shunji Shimadzu[3], Kazumasa Shirai[4], Kousuke Hanada[4], Tomonao Matsushita[5], Masahide Seki[6], Yuki Kondo[3], Takato Imaizumi[1] ([1]Dep. Biol., Univ. Washington, [2]CGR, Nagoya Univ., [3]Grad. Sch. Sci., Osaka Univ., [4]Dep. Biosci. Bioinform, Kyutech, [5]Grad. Sch. Sci., Kyoto Univ., [6]Grad. Sch. Front. Sci., Tokyo Univ.)	3pC02 Micro-particle-induced X-ray emission (Micro-PIXE) mapping of elemental distribution in several tissues of *Arabidopsis thaliana* Takeshi Uchiyama, Misako Miwa, Ayumi Nakatsuma, Sho Toyama, Shunsuke Kobayashi, Wataru Kada, Shigeo Matsuyama, Ellen Tanudjaja, Masaru Tsujii, Yasuhiro Ishimaru, Nobuyuki Uozumi (Grad. Sch. Eng., Tohoku Univ.)	3pD02 Inverse stable isotope labeling for analysis of specialized sulfur metabolism in Brassicaceae Ryosuke Sugiyama[1,2,3,4], Ayuko Kuwahara[4], Masami Hirai[4], Mami Yamazaki[1,2] ([1]Grad. Sch. Pharm. Sci., Chiba Univ., [2]PMSC, Chiba Univ., [3]JST PRESTO, [4]RIKEN CSRS)
14:00	3pA03 Accumulation of Acyl Plastoquinol and Triacylglycerol in Six Cyanobacterial Species with Different Sets of Genes Encoding Type-2 Diacylglycerol Acyltransferase-like Proteins Riko Tanikawa[1], Haruna Sakaguchi[2], Haruhiko Jimbo[1], Toshiki Ishikawa[1], Yukako Hihara[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Dept. Biochem. Mol. Biol., Fac. Sci., Saitama Univ.)	3pB03 E Decoding the Dynamics of Development: Genetic and Environmental Interplay in Tissue Morphogenesis Joshua Ikechukwu Egede (ALFA UNIVERSITY COLLEGE)	3pC03 E Mutation of a Ribosomal Protein (UL13X) Mediated Root Growth Defects under Calcium Deficiency in *Arabidopsis thaliana* Yicong Chen[1], Arpna Kumari[1], Hirofumi Fukuda[1], Naoyuki Sotta[1,2], Dichao Ma[1], Toru Fujiwara[1] ([1]Graduate School of Agricultural and Life Science, The University of Tokyo, [2]Graduate School of Agriculture, Osaka Metropolitan University)	3pD03 Live-cell imaging of flavin mononucleotide using a ligand-binding fluorescent protein Shintaro Ichikawa[1,2], Kenji Miura[3], Yutaka Kodama[1,2] ([1]Ctr. Biosci. Res. Educ., Utsunomiya Univ., [2]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ., [3]Fac. Life Environ. Sci., Univ. Tsukuba)
14:15	3pA04 Elucidating Molecular Mechanism of the Non-Canonical Partner-Switching System Involved in High-Light Acclimation in *Synechocystis* sp. PCC 6803 Riku Nakamura[1], Masako Hamada[2], Yuu Hirose[2], Yukako Hihara[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Grad. Sch. Eng., Toyohashi Univ. Tech.)	3pB04 Involvement of jasmonic acid in tomato embryo development Taiga Higashimura[1], Marina Hata[1], Tomoko Niwa[2,3], Takamasa Suzuki[4], Mitsuhiro Aida[5], Sumie Ishiguro[1] ([1]Grad. Sch. Bioagric. Sci., Nagoya Univ., [2]Sch. Agri., Meiji Univ., [3]OSRI, Meiji Univ., [4]Col. Biosci. Biotech., Chubu Univ., [5]Facul. Adv. Sci. Technol., Kumamoto Univ.)	3pC04 Root hair development in response to low potassium in *Arabidopsis* Kotone Miyazaki[1], Mirai Takada[2], Sho Nishida[2,3] ([1]Grad. Sch. Agri, Saga Univ., [2]Fac. Agri., Saga Univ., [3]United Grad. Sch. Agri. Sci., Kagoshima Univ.)	3pD04 Soil Volatilome Analysis in Domestic Six Soybean Fields Over the Two Years Suzuka Matsuki[1], Hikari Kuchikata[1], Shoichiro Hamamoto[2], Atsushi Fukushima[3,8], Naoto Nihei[4], Yasunori Ichihashi[5], Miyako Kusano[6,7,8] ([1]Grad. Sch. Life & Env. Sci., Univ. Tsukuba, [2]Bioresour. &Env. Eng., Fac. Agri., Hokkaido Univ., [3]Grad. Sch. Life & Env. Sci., Kyoto Pref. Univ., [4]Fac. Food Agri. Sci., Fukushima Univ., [5]RIKEN BRC, [6]Life & Env. Sci., Univ. Tsukuba, [7]T-PIRC, Univ. Tsukuba, [8]RIKEN CSRS)

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Cell wall	Photoreceptors/ Photoresponses	Membrane trafficking				
3pE01 Metabolite and gene expression changes in potatoes (*Solanum tuberosum L.*) in response to drought stress Kenta Kawamoto, Hirofumi Masutomi, Mutsumi Yoshioka, Katsuyuki Ishihara (Calbee, Inc. R&D)	3pF01 Ⓔ Mechanical alteration of *A.thaliana* and *P. patens* in response to stimuli Liyu Deng[1], Yunshu Wang[2], Yuta Nakagawa[3], Andres Aguilar Ariza[2], Michitaka Notaguchi[9,10], Akihiro Isozaki[3], Keisuke Goda[3,6,7], Toru Fujiwara[2], Hirotaka Hida[5], Tomomichi Fujita[4], Marcel Pascal Beier[8] ([1]Grad. Sch. Life Science, Hokkaido University, [2]Dep. Appl. Biol. Chem., Grad. Sch. Agri. Life Sci., The University of Tokyo, [3]Dep. Chem., The University of Tokyo, [4]Fac. Sci. Hokkaido University, [5]Dep. Mech. Eng., Grad. Sch. Kobe University, [6]Dep. Bioeng., University of California, [7]Inst. Tech. Sci., Wuhan University, [8]Inst. Adv. Higher Edu, Hokkaido University, [9]Bioscience and Biotechnology Center, Nagoya University, [10]Department of Biological Sciences, Kyoto University)	3pG01 The accumulation of anthocyanin in leaf sheaths promotes stem elongation in *Oryza sativa* Miya Mizutani[1,2], Quynh Ha[1], Syun Ohno[3], Mio Mizushima[3], Hiroshi Takagi[1,4], Eiji Gotoh[5], Takamasa Suzuki[6], Vincent Pamugas Reyes[3], Kazuyuki Doi[3], Mizuki Murao[7], Yusuke Aihara[8], Toshinori Kinoshita[7,8], Tomonao Matsushita[9], Keisuke Nagai[1], Kumi Yoshida[3], Motoyuki Ashikari[1] ([1]Biosci. Biotech. Ctr., Nagoya Univ., [2]Grad. Sch. Bio., NAIST, [3]Grad. Sch. Bio. Sci., Nagoya Univ., [4]CGR, Nagoya Univ., [5]Fac. of Agri. Kyusyu Univ., [6]Col. Biosci. Biotech., Chubu Univ., [7]Grad. Sch. Sci., Nagoya Univ., [8]WPI-ITbM, Nagoya Univ., [9]Grad. Sch. Sci., Kyoto Univ.)	3pH01 Functional analysis of Arabidopsis RABH1 GTPase Haruka Iwashita[1], Chihiro Ohori[2], Yoko Ito[3], Emi Ito[3], Akihiko Nakano[4], Takashi Ueda[5,6], Tatsuaki Goh[7], Keiji Nakajima[7], Tomohiro Uemura[1,2] ([1]Faculty of Science, Ochanomizu Univ., [2]Graduate School of Humanities and Sciences, Ochanomizu Univ., [3]Institute for Human Life Innovation, Ochanomizu Univ., [4]Live Cell Super-Resolution Imaging Research Team, RIKEN Center for Advanced Photonics., [5]Division of Cellular Dynamics, National Institute for Basic Biology., [6]The Department of Basic Biology, SOKENDAI., [7]Graduate School of Science and Technology, Nara Institute of Science and Technology.)				13:30
3pE02 Ⓔ Ethanol application enhances freezing stress tolerance in Arabidopsis and sugar beet Daisuke Todaka[1], Kentaro Nakaminami[1], Seishi Ikeda[2], Kazuyuki Okazaki[2], Thi Nhu Quynh Do[1,3], Maho Tanaka[1,4], Satoshi Takahashi[1,4], Chieko Torii[1], Junko Ishida[1,4], Atsushi Nagano[5,6], Motoaki Seki[1,4,7,8] ([1]Plant Genomic Network Research Team, RIKEN CSRS, [2]Hokkaido Agricultural Research Center, NARO, [3]AGI, [4]Plant Epigenome Regulation Lab., RIKEN CPR, [5]Fac. of Agr., Ryukoku Univ., [6]IAB, Keio Univ., [7]KIBR, Yokohama City Univ., [8]Grad. Sch. Sci. Eng., Saitama Univ.)	3pF02 Ⓔ Xyloglucan Endotransglucosylase Acts as a Potential Contributor to Plasmodesmata Development in the Moss *Physcomitrium patens* Phu Thanh Ngo[1], Marcel Pascal Beier[2], Chiyo Jinno[3], Tomomichi Fujita[3] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Inst. Advan. Hi Edu., Hokkaido Univ., [3]Fac. Sci., Hokkaido Univ.)	3pG02 Role of phospho*enol*pyruvate carboxylase in light-induced stomatal opening Kohei Fukatsu[1], Yuki Hayashi[1], Takamasa Suzuki[2], Keiko Kano[3], Emi Mishiro-Sato[3], Keiko Kuwata[3], Toshinori Kinoshita[1,3] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Col. Biosci. Biotech., Chubu Univ., [3]ITbM, Nagoya Univ.)	3pH02 Analysis of subcellular localization and physiological functions of *Arabidopsis thaliana* VAMP714 Tomoko Eguchi[1], Sae Endo[1], Emi Ito[2], Akihiko Nakano[3], Tomohiro Uemura[1] ([1]Graduate School of Humanities and Sciences, Ochanomizu Univ, [2]Institute for Human Life Innovation, Ochanomizu Univ., [3]Live Cell Super-Resolution Imaging Research Team, RIKEN Center for Advanced Photonics.)				13:45
3pE03 Enhanced Abiotic Stress Tolerance via Ethanol Treatment in plants: Investigating the Role of Alcohol Dehydrogenase 1 (ADH1) Aki Kawamura[1,2], Daisuke Todaka[1], Akihiro Matsui[1], Chieko Torii[1], Naoki Takahashi[2], Motoaki Seki[1,3,4,5] ([1]Plant Genomic Network Research Team, RIKEN CSRS, [2]Agr. Meiji Univ, [3]Plant Epigenome Regulation Lab., RIKEN CPR, [4]KIBR, Yokohama City Univ., [5]Grad. Sch. Sci. Eng., Saitama Univ.)	3pF03 Ⓔ Bioengineering a better plant root - do phi thickenings make plant roots stronger? David Collings (Research School of Biology, Australian National University)	3pG03 Phosphorylation Sites and Autophosphorylation Modes of Phototropin in *Marchantia polymorpha* Minoru Noguchi[1,2], Saki Noda[3], Yoshikatsu Matsubayashi[3], Yutaka Kodama[1,2] ([1]Ctr. Biosci. Res. Educ., Utsunomiya Univ., [2]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ., [3]Grad. Sch. Sci., Nagoya Univ.)	3pH03 Dynamics of the VAMP72 group during pollen tube elongation Anna Toude[1], Emi Ito[3], Yoko Ito[3], Kazuo Ebine[4,5], Tetsuya Higashiyama[6], Takashi Ueda[4,5], Akihiko Nakano[7], Tomohiro Uemura[1,2] ([1]Grad. Sch. Humanities and Sciences, Ochanomizu Univ., [2]Faculty of Core Research, Natural Science Div., Ochanomizu Univ., [3]IHLS., Ochanomizu Univ., [4]Div. Cell. Dynamics, NIBB, [5]Dept. Basic Bio., SOKENDAI, [6]Grad. Sch. Sciences, Univ of Tokyo, [7]RIKEN RAP)				14:00
3pE04 Ⓔ Application of 1-propanol enhances drought stress tolerance in *Arabidopsis thaliana* Quynh Do[1,2], Daisuke Todaka[1], Satoshi Takahashi[1,3], Maho Tanaka[1,3], Junko Ishida[1,3], Miyako Kusano[4,5,6], Makoto Kobayashi[4], Kazuki Saito[4], Atsushi Nagano[7,8], Xuan Hoi Pham[2], Motoaki Seki[1,3,9,10] ([1]Plant Genomic Network Research Team, RIKEN CSRS, [2]Agricultural Genetics Institute, Hanoi, Vietnam, [3]Plant Epigenome Regulation Laboratory, RIKEN Cluster for Pioneering Research, [4]Metabolomics Research Group, RIKEN CSRS, [5]Graduate School of Life and Environmental Science, University of Tsukuba, [6]Tsukuba Plant Innovation Research Center, University of Tsukuba, [7]Faculty of Agriculture, Ryukoku University, [8]Institute for Advanced Biosciences, Keio University, [9]Kihara Institute for Biological, Yokohama City University, [10]Graduate School of Science and Engineering, Saitama University)	3pF04 Cell wall structure of two *Selaginella* species with different tolerance to desiccation Momoka Ohashi[1], Takuma Kikuchi[1], Kimie Atsuzawa[2], Yasuko Kaneko[3], Toshihisa Kotake[1], Daisuke Takahashi[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]CACS., Saitama Univ., [3]Fac. Edu., Saitama Univ.)	3pG04 Chloroplast distribution under mixed visible light and UV-B irradiation in Arabidopsis Momo Otake[1], Noriyuki Suetsugu[2], Eiji Gotoh[3], Atsushi Takemiya[4], Hinano Takase[5], Taishi Umezawa[5], Masamitsu Wada[6], Jun Hidema[1,7] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]Grad. Sch. Arts Sci., Univ. Tokyo, [3]Grad. Sch. Agric., Kyusyu Univ., [4]Grad. Sch. Sci. Tech. for innov., Yamaguchi Univ., [5]Grad. Sch. BASE, TUAT, [6]Grad. Sch. Sci., Tokyo Metropolitan Univ., [7]Research Center for Space Agric. and Hort., Chiba Univ.)	3pH04 Ⓔ Retrieval from vacuolar/endosomal compartments underpinning neofunctionalization of SNARE in plants Yihong Feng[1], Kazuo Ebine[1,2], Yoko Ito[3], Takehiko Kanazawa[1,2], Tatsuya Sawasaki[4], Akira Nozawa[4], Tomohiro Uemura[3], Akihiko Nakano[5], Takashi Ueda[1,2] ([1]Division of Cellular Dynamics, National Institute for Basic Biology, [2]Basic Biology Program, Graduate Institute for Advanced Studies, SOKENDAI, [3]Graduate School of Humanities and Sciences, Ochanomizu University, [4]Proteo-Science Center, Ehime University, [5]Live Cell Super-Resolution Imaging Research Team, RIKEN Center for Advanced Photonics)				14:15

Ⓔ=Presentation in English

● Day 3, Sun., March 16, PM (13:30–16:30)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Environmental response A/ Physiological responses	Specialized (secondary) metabolism
14:30	3pA05 E Functional analysis of Trx-like protein CDSP32 in chloroplast redox regulation Minh Chau Tran[1], Yuka Fukushi[1], Masaru Kono[1,2], Toru Hisabori[3], Keisuke Yoshida[1] ([1]Lab Chem Life Sci, Science Tokyo, [2]ABC, [3]SOKENDAI)	3pB05 The Role of Polar Auxin Transport in Cell Polarity Formation in Lateral Root Founder Cells in *Arabidopsis thaliana* Sanae Kaneta, Tatsuo Kakimoto (Grad. Sch. Sci., Osaka Univ.)	3pC05 An *Arabidopsis* short ORF, *LOHN1*, modulates lateral root spacing by regulating auxin transport under the control of systemic nitrogen signaling Tomoya Sonoda[1], Kazuhiro Ito[1], Kentaro P. Iwata[2], Chieko Goto[2,3], Hidehiro Fukaki[2], Kousuke Hanada[4], Koh Iba[1], Kensuke Kusumi[1] ([1]Department of Biology, Faculty of Science, Kyushu University, Fukuoka, Japan, [2]Graduate School of Science, Kobe University, Kobe, Japan, [3]SANKEN, Osaka University, Osaka, Japan, [4]Department of Bioscience and Bioinformatics, Kyusyu Institute of Technology, Iizuka, Fukuoka, Japan)	3pD05 E Variation in Functional Compounds and Volatile Organic Compound Profiles across Twelve Sakura Cultivars Yongqing Cai[1], Shuri Kato[2], Asako Matsumoto[2], Makoto Kobayashi[3], Miyako Kusano[3,4,5] ([1]Grad.Sch.of Life and Envi. Sci., Univ. Tsukuba, [2]Tama Forest Science Garden, [3]RIKEN Center for Sustainable Resource Science, [4]Faculty of life and Envi. Sci., Univ. Tsukuba, [5]Tsukuba Plant Innovation Research Center, Univ. Tsukuba)
14:45	3pA06 Redox Regulation of Phosphoglucose Isomerase Linking the Calvin-Benson Cycle and Starch Metabolism Subaru Nishide, Kosuke Fujii, Keisuke Yoshida (Lab Chem Life Sci, Science Tokyo)	3pB06 Elucidation of elongation mechanisms of the *Arabidopsis* zygote focusing on calcium oscillations Hikari Matsumoto[1], Zichen Kang[2], Sakumi Nakagawa[1], Yuga Hanaki[1], Koichi Toyokura[3], Momoka Tanifuji[4], Tomonobu Nonoyama[2], Yukitaka Ishimoto[5], Satoru Tsugawa[2], Minako Ueda[1,4] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]Fac. Sys. Sci., Akita Prefectural Univ., [3]Grad. Sch. Int. Sci. Life., Hiroshima Univ., [4]Fac. Sci., Tohoku Univ., [5]Grad. Sci. & Engi., Saga Univ.)	3pC06 Secretion of malate and acid phosphatase from the cortical tissues in cluster rootlets formed by the low-phosphorus-tolerant plant *Hakea laurina* Hirotsuna Yamada[1,2], Lydia Ratna Bunthara[1], Akira Tanaka[1,3], Takuro Kohama[4], Hayato Maruyama[5], Wakana Tanaka[1], Sho Nishida[3,6], Hans Lambers[2,7,8], Takayuki Sasaki[9], Jun Wasaki[1,4,10] ([1]Graduate School of Integrated Sciences for Life, Hiroshima University, [2]University of Western Australia, [3]Faculty of Agriculture, Saga University, [4]School of Integrated Arts and Sciences, Hiroshima University, [5]School of Agriculture, Hokkaido University, [6]The United Graduate School of Agricultural Sciences, Kagoshima University, [7]China Agricultural University, [8]Beijing Forestry University, [9]Institute of Plant Science and Resources, Okayama University, [10]Seto Inland Sea Carbon Neutral Research Center, Hiroshima University)	
15:00		3pB07 Asymmetric gene expression in the establishment of biradial symmetry during Arabidopsis embryogenesis Senri Watanabe[2], Takumi Higaki[1,2], Takashi Ishida[1,2], Mitsuhiro Aida[1,2] ([1]Facul. Adv. Sci. Technol., Kumamoto Univ., [2]Grad. Sch. Sci. Technol., Kumamoto Univ.)	3pC07 Coumarin Import Transporter1 is a key player in root iron acquisition in *Arabidopsis thaliana* Shunsuke Watanabe[1,2], Meijie Li[2], Chérhazad Boustani[2], Kevin Robe[2], Yuri Kanno[3], Mitsunori Seo[3,4], Christian Dubos[2] ([1]Fac. Pharm., Yasuda Women's Univ., [2]IPSiM, Univ Montpellier, CNRS, INRAe, Institut Agro, [3]RIKEN CSRS, [4]TBRC, Univ. Ryukyus)	
15:15		3pB08 Negative control of a master transcriptional regulator for shoot epidermal cell differentiation Shinobu Takada[1], Ayaka Yoshida[1], Hiroyuki Iida[2] ([1]Dept. Biol. Sci., Grad. Sch. Sci., Osaka Univ, [2]Organismal and Evolutionary Biology Programme, Faculty of Biological and Environmental Sciences, University of Helsinki)	3pC08 Effects of Iron Deficiency and Alkaline Stress on the Iron Absorption Mechanism (Strategy II) in Rice Tomoki Okamura[1], Seiji Nagasaka[1,2], Yanqi Luo[1], Sayaka Kudou[2], Shikou Watanabe[2] ([1]Grad. Sch. LifeSci. Univ. Toyo, [2]LifeSci. Univ. Toyo)	
15:30		3pB09 Regulation of leaf epidermal development through cell cycle control by HD-ZIP IV transcription factors Kenji Nagata[1], Takafumi Miyashita[2], Akitoshi Iwamoto[3], Taku Takuhashi[4], Mitsutomo Abe[1] ([1]Grad. Sch. Arts and Sci., Univ. Tokyo, [2]Grad. Sch. Sci., Kanagawa Univ., [3]Dept. Biol. Fac. Sci. Kanagawa Univ., [4]Grad. Sch. Sci., Okayama Univ.)		

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Cell wall	Photoreceptors/ Photoresponses	Membrane trafficking				
3pE05 Genetic analysis of Osmo-sensitive locus in *Arabidopsis thaliana* accessions Yusuke Murakoshi[1], Kosuke Banba[1], Takahiro Hirano[1], Goro Masuda[1], Hirotaka Ariga[2], Keisuke Tanaka[3], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Res. Cent. of Gen. Res., NARO, [3]Nodai Genome Research Center)	3pF05 Limiting Silicon Uptake Leads to an Increase in Cell Wall Lignin Content in Sorghum Reza Ramdan Rivai[1,2,4], Kiyoshi Yamazaki[1,3], Takuji Miyamoto[1], Masaru Kobayashi[2], Yuki Tobimatsu[1], Tsuyoshi Tokunaga[3], Toru Fujiwara[3], Toshiaki Umezawa[1] ([1]RISH, Kyoto Univ., [2]Grad. Sch. Agric., Kyoto Univ., [3]Grad. Sch. Agric. Life Sci., Univ. Tokyo, [4]RC. Appl. Botany, BRIN, Indonesia)	3pG05 Novel function of CDKA in regulation of light responses Sakuta Miyazaki[1], Natsumi Inoue[2], Masaki Ishikawa[3], Mitsuyasu Hasebe[3], Masami Sekine[4], Satoshi Naramoto[2], Tomomichi Fujita[2] ([1]Grad Sch Life Sci, Hokkaido Univ., [2]Fac Sci, Hokkaido Univ., [3]Div Evol Biol., NIBB, [4]Fac Bior Envi Sci, Ishikawa Pref Univ.)	3pH05 Functional analysis of Syntaxin6-like protein in vascular plant (SYLK) Sara Tode[1], Emi Ito[2], Yoko Ito[2], Yutaro Shimizu[3], Kei Hiruma[4], Wataru Yamori[5], Naoya Katsuhama[5], Akihiko Nakano[6], Tomohiro Uemura[7] ([1]Grad. Sch. Humanities and Sciences, Ochanomizu Univ., [2]IHLS., Ochanomizu Univ., [3]LBM, UMR5200 CNRS/Bordeaux Univ., [4]Grad. Sch. Arts and Sciences, Univ. Tokyo, [5]ISAS, Univ. Tokyo, [6]RIKEN RAP, [7]Faculty of Core Research, Natural Science Div., Ochanomizu Univ.)				14:30
3pE06 Physiological and genetic analyses of two *A. thaliana* acquired osmotolerance defective mutants: *aod28* and *aod29* Victor Kouspits[1], Goro Masuda[1], Akito Hosoi[2], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Nodai Genome Research Center)	3pF06 Cross-laminated cell wall structure and lignin deposition are different evolutionary events in the supporting tissues of land plants Naoki Takata (Forest Bio Res. Cent., For. Forest Prod. Res. Inst.)	3pG06 AtCFI is essential for maintaining the diversity at the 3' ends of mRNA Xiaojuan Zhang[1], Łukasz Szewc[2], Mateusz Bajczyk[2], David Bielewicz[3], Kei Yura[4,5,6], Miku Odoi[1], Cyrose Suzie Silvosa Millado[1,7], Mariko Kato[1], Marta Garcia-León[8], Vicente Rubio[8], Mika Nomoto[9], Yasuomi Tada[9], Tsuyoshi Furumoto[10], Zofia Szweykowska-Kulinska[2], Dorothee Staiger[11], Takashi Aoyama[1], Artur Jarmolowski[2], Tomohiko Tsuge[1] ([1]ICR, Kyoto Univ., [2]IMBB., Adam Mickiewicz Univ., [3]WCAT, [4]Grad. Sch. Humanit. Sci., Ochanomizu Univ., [5]Ctr. Interdiscip. AI and Data Sci., Ochanomizu Univ., [6]Sch. Adv. Sci. Eng., Waseda Univ., [7]DBSES, Univ. Philippines Mindanao, [8]CNB-CSIC, [9]Ctr. Gene Res., Nagoya Univ., [10]Sch. Agric., Ryukoku Univ., [11]Biology, Bielefeld Univ.)	3pH06 SYP4 Qa-SNARE proteins regulate auxin distribution and auxin-dependent plant development in Arabidopsis Kosuke Ogita[1], Narumi Fukasawa[1], Ruian Wang[2], Shizuku Tanigawa[2], Tomohiro Uemura[3], Hirokazu Tanaka[1] ([1]Grad. Sch. Agr., Meiji Univ., [2]Sch. Agr., Meiji Univ., [3]Grad. Sch. Human. Sci., Ochanomizu Univ.)				14:45
			Bioresources				
3pE07 AtTRB3 enhances ethanol-induced salt stress tolerance by activating transcription of *Cu/Zn superoxide dismutase 1 and 2* Kota Urushihara[1], Akihiro Matsui[2], Maho Tanaka[2], Sumire Fujiwara[3], Nobutaka Mitsuda[3], Masaru Ohme-Takagi[3], Atsushi Nagano[4,5], Motoaki Seki[1], Kaori Sako[1,2] ([1]Dep. Adv. Biosci., Kindai Univ., [2]CSRS, RIKEN, [3]AIST, Bioprod. Res. Inst., [4]Fac. Agri., Ryukoku Univ., [5]Inst. Adv. Biosci., Keio Univ)	3pF07 Analysis of microtubule regulation for secondary cell wall formation in protoxylem vessel cells Eri Kamon[1], Arata Yoneda[2], Taku Demura[2,3], Misato Ohtani[2,3,4] ([1]Ritsumeikan Univ., [2]Grad. Sch. Sci. Tech., NAIST, [3]RIKEN, CSRS, [4]Grad. Sch. Front. Sci., Univ. Tokyo)	3pG07 Ⓔ Characterization of a novel nuclear protein of the SAP130/CPSF160/DDB1 family Cyrose Suzie Silvosa Millado[1,2], Kei Yura[3,4], Vicente Rubio[5], Mariko Kato[1], Tomohiko Tsuge[1] ([1]ICR, Kyoto University, [2]DBSES, University of the Philippines Mindanao, [3]Grad. Sch. Humanit. Sci., Ochanomizu University, [4]Sch. Adv. Sci. Eng., Waseda University, [5]CNB-CSIC)	3pH07 GWAS analysis using ionome data of rice genetic resources Nobuhiro Tanaka[1], Yoshihiro Kawahara[2], Kaworu Ebana[3], Matthew Shenton[1] ([1]Institute of Crop Science, NARO, [2]Research Center for Advanced Analysis, NARO, [3]Research Center of Genetic Resources, NARO)				15:00
3pE08 Isolation and genetic analyses of*salt overly tolerant4,6* (*sot4*, *6*) mutant of *Arabidopsis* Tomoyo Ohashi[1], Akito Hosoi[2], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Nodai Genome Research Center)	3pF08 Functional analysis of glycosyltransferases whose expression was induced during G-layer formation Mizuki Fukue[1], Sakurako Tamano[1], Daisuke Takahashi[2], Toshihisa Kotake[2], Eri Kamon[1], Kazuya Ishikawa[3], Takeshi Ishimizu[1,3] ([1]College of Life Sciences, Ritsumeikan University, [2]Graduate School of Science and Engineering, Saitama University, [3]R-GIRO, Ritsumeikan University)	3pG08 Ⓔ Investigation of downstream components of the B4 Raf-like kinase PRAF in *Marchantia polymorpha* Shota Yamauchi[1], Eri Koide[2], Kota Yamashita[3], Hinano Takase[3], Taishi Umezawa[3], Hirofumi Nakagami[4], Takayuki Kohchi[2], Ryuichi Nishihama[1] ([1]Dept. Appl. Biol. Sci., Fac. Sci. Tech., Tokyo Univ. Sci., [2]Grad. Sch. Biostudies, Kyoto Univ., [3]Grad. Sch. BASE, Tokyo Univ. Agri. Tech., [4]Max Planck Inst. Plant Breed. Res.)	3pH08 Near complete genome assembly of *Streptocarpus grandis* obtained from the RADseq genetic map and PacBio HiFi long read sequenciing Kanae Nishii[1,2], Michael Möller[2], Nathan Kelso[2], Sadie Barber[2], Michelle Hart[2] ([1]Kanagawa Uni., [2]Royal Botanic Garden Edinburgh)				15:15
3pE09 Mutations of the *SALT* gene found in *Arabidopsis thaliana* Lch-0 enhances salt tolerance Takuma Kajino[1], Kaori Uchiyama[1], Hirotaka Ariga[2], Yoshihiro Hase[3], Tomoaki Horie[4], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri, [2]Res. Cent. of Gen. Res., NARO, [3]Takasaki Advanced Radiation Research Institute, QST, [4]Div. of Applied Biology, Shinshu Univ.)			3pH09 The difference in light intensity during culture affects the production of health-related compounds in the diatom *Chaetoceros gracilis*, a species used for aquaculture feed Hiroaki Takebe, Atsushi Sakurai, Sousuke Imamura (NTT)				15:30

Ⓔ=Presentation in English

● Day 3, Sun., March 16, PM (13:30–16:30)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Development/Morphogenesis	Environmental response A/ Physiological responses	Specialized (secondary) metabolism
15:45				
16:00				
16:15				

Room E	Room F	Room G	Room H	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Cell wall	Photoreceptors/ Photoresponses	Bioresources				
3pE10 Analysis of the rice homolog of *SALT* gene identified from salt-tolerant Arabidopsis Nozomi Kubota[1], Kanna Izawa[1], Hirotaka Ariga[2], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Res. Cent. of Gen. Res., NARO)							15:45
3pE11 Isolation of the salt stress tolerance genes of Mongolian plant *Chloris virgata* Hirotaka Ogawa[1], Shintaro Kawabata[1], Bolortuya Byambajav[2], Namuunaa Ganbayar[1], Ayumi Yamagami[1], Davaapurev Bekh-Ochir[2], Komaki Inoue[3], Asaka Kanatani[3], Keiichi Mochida[3], Tadao Asami[4], Batkhuu Javzan[2], Takeshi Nakano[1] ([1]Grad. Sch. Biostudies., Kyoto Univ., [2]National University of Mongolia, [3]CSRS., RIKEN, [4]Grad. Sch. Agri. Life Sci., Univ. Toky)							16:00
3pE12 (E) Maternally inherited extranuclear genome contributes to salinity tolerance in rice Murat Aycan[1], Yunus Emre Koc[2], Ermelinda Maria Lopes Hornai[2], Toshiaki Mitsui[1] ([1]Laboratory of Biochemistry, Niigata University, [2]Grad. Sch. Sci. and Tech., Niigata University)							16:15

(E)=Presentation in English

List of Chairpersons of Oral Presentations

Day 1 Fri., March 14, AM

1aA01-1aA11	Photosynthesis	Fusamichi Akita
		Jun Minagawa
		Ritsuko Fujii
1aB01-1aB12	Development/Morphogenesis	Chihiro Furumizu
		Tetsuya Hisanaga
		Yuuki Sakai
1aC01-1aC12	Organelles/Cytoskeleton	Kosei Iwabuchi
		Motoki Tominaga
		Yuko Inoue-Aono
1aD01-1aD12	Genome function/gene regulation	Takamasa Suzuki
		Yumi Nakai
		Hideki Hirakawa
1aE01-1aE12	Environmental response B/Environmental stresses	Keisuke Nagai
		Akihisa Shinozawa
		Yoichiro Fukao
1aF01-1aF09	Plant hormones/Signaling molecules	Kotaro Nishiyama
		Aino Komatsu
1aG01-1aG12	Reproduction	Yoko Mizuta
		Kazuo Ebine
		Naoki Minamino
1aH01-1aH12	Plant-organism interaction A	Shigetaka Yasuda
		Yasuhiro Kadota
		Chika Tateda

Day 1 Fri., March 14, PM

1pA01-1pA11	Photosynthesis	Yutaka Shibata
		Yuu Hirose
		Hiroyuki Mino
1pB01-1pB11	Development/Morphogenesis	Keiko Sakakibara
		Emiko Yoro
		Tomotsugu Koyama
1pC01-1pC11	Organelles/Cytoskeleton	Takashi L. Shimada
		Hiroyoshi Takano
		Mitsumasa Hanaoka
1pD01-1pD09	Genome function/gene regulation	Tasuku Ito
		Satoyo Oya
		Takuya Sakamoto
1pE01-1pE07	Flowering/Clock	Atsuko Kinoshita
		Mitsutomo Abe
1pF01-1pF09	Plant hormones/Signaling molecules	Tsuyoshi Aoyama
		Koji Takahashi
1pG01-1pG11	Biomembrane/Ion and solute transport	Noryuki Konishi
		Yuko Kurita
		Shin-ichiro Inoue
1pH01-1pH11	Systems biology	Takeshi Obayashi
		Atsushi Nagano
		Kyonoshin Maruyama

Day 2 Sat., March 15, AM

2aA01-2aA11	Photosynthesis	Yoshitaka Nishiyama
		Kentaro Ifuku
		Yuki Okegawa
2aB01-2aB12	Development/Morphogenesis	Yuki Doll
		Yuki Kondo
		Shunji Shimadzu
2aC01-2aC12	Organelles/Cytoskeleton, Cell cycle/Cell division	Hiroyasu Motose
		Ken Matsuoka
		Takahiro Hamada
2aD01-2aD11	Primary metabolism	Takeo Sato
		Atsuko Miyagi
		Ken'ichi Ogawa
2aE01-2aE12	Environmental response B/Environmental stresses	Jun'ichi Mano
		Fuminori Takahashi
		Kenji Takizawa

2aF01-2aF09	Plant hormones/Signaling molecules	Hidefumi Shinohara Satoru Okamoto
2aG01-2aG12	Reproduction	Tomoko Igawa Naoya Sugi Erika Toda
2aH01-2aH12	Plant-organism interaction B	Kei Hiruma Shoko Inaba Akifumi Sugiyama

Day 3 Sun., March 16, AM

3aA01-3aA10	Photosynthesis	Yusuke Matsuda Maki Kawai-Yamada Tsuyoshi Furumoto
3aB01-3aB11	Development/Morphogenesis	Koichi Toyokura Tatsuaki Goh Mariko Kato
3aC01-3aC12	Environmental response A/Physiological responses	Haruko Ueda Takeshi Nishimura Hiraku Suda
3aD01-3aD12	Primary metabolism, Specialized (secondary) metabolism	Takao Koeduka Ryosuke Munakata Ryosuke Sugiyama
3aE01-3aE12	Environmental response B/Environmental stresses	Teruaki Taji Junya Mizoi Sousuke Imamura
3aF01-3aF10	Plant hormones/Signaling molecules	Takatoshi Kiba Noriyuki Nishimura
3aG01-3aG10	New technology	Daisuke Miki Takashi Ishida Masaki Odahara
3aH01-3aH12	Plant-organism interaction B	Yasuyuki Kawaharada Akira Akamatsu Hiromu Kameoka

Day 3 Sun., March 16, PM

3pA01-3pA06	Photosynthesis	Takayuki Shimizu Keisuke Yoshida
3pB01-3pB09	Development/Morphogenesis	Shinobu Takada Hikari Matsumoto
3pC01-3pC08	Environmental response A/Physiological responses	Kensuke Kusumi Sho Nishida Shunsuke Watanabe
3pD01-3pD05	Specialized (secondary) metabolism	Tetsuya Mori Yasuyuki Yamada
3pE01-3pE12	Environmental response B/Environmental stresses	Motoaki Seki Kaori Sako Takeshi Nakano
3pF01-3pF08	Cell wall	Eri Kamon Masaru Kobayashi
3pG01-3pG08	Photoreceptors/Photoresponses	Kohei Fukatsu Shota Yamauchi
3pH01-3pH09	Membrane trafficking, Bioresources	Hirokazu Tanaka Yoko Ito

General Presentations

Program of Poster Presentations

- Poster viewings and discussions will be held on-site. You can also view the posters online.

- During the online poster viewing period (March 11, 9:00 a.m. - March 16), you can also use the comment box on the abstract page of your poster posted on the web abstract portal (ORSAM portal) for questions and answers. Please respond to questions in the comments section in a timely manner.

- Presentations submitted for the PCP Poster Award are indicated by adding **P** to their presentation numbers in the poster presentation program. Additionally, a special mark is placed on the number cards of the posters to signify their submission for the award.

- Schedule

Presentation No.	1P001–1P212	2P001–2P211
Mounting	March 14 9:00–12:00	March 15 10:30–12:00
Discussion	March 14 Odd numbers 17:00–17:45 Even numbers 17:45–18:30	March 15 Odd numbers 13:30–14:15 Even numbers 14:15–15:00
Removal	March 15 9:00–10:30	March 16 15:00–16:30

・The presenters should be in front of their posters during the discussion time.
・Any posters remaining after removal time will be removed by the Meeting Committee.

■ Photosynthesis

1P001 Effect of iron deficient/excess condition on energy-transfer processes of microalgae, probed by time-resolved fluorescence

Nozomi Sakai[1], Miyu Furutani[1], Shimpei Aikawa[2], Seiji Akimoto[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]JIRCAS)

1P002 Effect of iron/copper deficient condition on primary photosynthetic processes of microalgae

Nozomi Sakai[1], Miyu Furutani[1], Shimpei Aikawa[2], Seiji Akimoto[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]JIRCAS)

1P003 Microspectroscopic analysis of photosynthetic pigments in Kaiike-sediment samples

Risa Kojima[1], Tomohiro Ishikawa[2], Ryosuke Saito[3], Toru Kondo[4] ([1]NIBB, [2]Dept. of Life Sci and Tech., Tokyo Tech., [3]Dept. of Earth Sci., Yamaguchi Univ., [4]ExCELLS)

1P004 Energy transfer pathway to carotenoid triplet in photosynthetic reaction center complex of the green sulfur bacterium *Chlorobaculum tepidum*

Tomomi Inagaki[1], Masatoshi Kida[2], Daisuke Kosumi[3], Chihiro Azai[4] ([1]Graduate School of Life Sciences, Ritsumeikan University, [2]Graduate School of Science and Technology, Kumamoto University, [3]Institute of Industrial Nanomaterials, Kumamoto University, [4]Faculty of Science and Engineering, Chuo University)

1P005 Site-directed mutations at D2-T231 interacting with one phosphatidylglycerol molecule (PG714) affects the repair of PSII

Takao Kurahashi[1], Mayuko Oshiumi[1], Toshiyuki Shinoda[2], Yoshiki Tanase[3], Kaichiro Endo[4], Jian-Ren Shen[5], Haruhiko Jimbo[3], Hajime Wada[4], Rimi Koyama[2], Naoki Mizusawa[1,2] ([1]Grad. Sch. Sci., Hosei Univ., [2]Res. Micro-Nano Tech., Hosei Univ., [3]Grad. Sch. Sci., Saitama Univ., [4]Grad. Sch. Arts Sci., Univ. Tokyo, [5]RIIS, Okayama Univ.)

1P006 Acclimation of photosynthetic system in red color red alga *Porphyridium cruentum* and green color red alga *P. aerugineum* grown under the different spectral lights

Masakazu Toyoshima[1], Ginga Shimakawa[2], Yusuke Matsuda[1] ([1]Sch. Biol. Environ. Sci., KGU, [2]Grad. Sch. Agri. Sci. Kobe Univ.)

1P007 High-resolution cryo-EM structure of photosystem II from *Thermosynechococcus vulcanus*

Koji Kato[1], Yoshiki Nakajima[1], Fusamichi Akita[1], Radostin Danev[2], Jian-Ren Shen[1] ([1]RIIS, Okayama Univ., [2]Grad. School of Med. UTokyo)

1P008 Structural changes and functional implications of extrinsic protein detachment and reconstitution in photosystem II revealed by X-ray crystallography

Yoshiki Nakajima[1], Jian-Ren Shen[1], Ryo Nagao[2] ([1]Res. Inst. Interdiscip. Sci., Okayama Univ., [2]Grad. Sch. Integr. Sci. Tech., Shizuoka Univ.)

1P009 Inhibition of the respiratory chain affects a balance between $\Delta\Psi$ and ΔpH in the photosynthetic regulation

Tatsuhisa Konishi, Ko Noguchi (Sch. Life Sci., Tokyo Univ. Pharm. and Life Sci.)

1P010 Photosynthetic response of massive marimo algae balls (*Aegagropila linnaei*)

Akina Obara[3], Yoichi Oyama[4], Keisuke Yoshida[2], Masaru Kono[1,2] ([1]ABC, [2]Inst. Integ. Res., Science Tokyo, [3]Grad. of Sci., Kanagawa Univ., [4]Kushiro Board of Education)

1P011 Analysis of RNAi knockdown lines of cytosolic glutamine synthetase 1a (GS1a) in Japanese cedar reveals that GS1a is involved in photorespiration in conifers

Shin-Ichi Miyazawa[1], Yasunori Ohmiya[2], Mitsuru Nishiguchi[1], Tsuyoshi E. Maruyama[1] ([1]Dep. Forest Molecular Genetics and Biotechnology, FFPRI, [2]International Cooperation Div., FTBC)

1P012 Novel Bestrophin-binding protein plays role in CO_2-concentrating mechanism in diatom *Phaeodactylum tricornutum*

Matthew Brown[1], Minori Nigishi[1], Ginga Shimakawa[2], Yusuke Matsuda[1] ([1]Kwansei Gakuin University, [2]Kobe University)

1P013 Features of photosynthetic function of the photoautotrophically cultured green cells of *Arabidopsis*

Daichi Suwa[1], Maya Tatumi[1], Kotarou Ogasa[2], Gen Takenaka[2], Satomi Takeda[1,2] ([1]College of Life, Environment, and Life Sciences, Osaka Prefecture Univ., [2]Grad. Sch. Sci., Osaka Metropolitan Univ.)

1P014 Exploring regulatory mechanisms of plastid-encoded RNA polymerase during chloroplast differentiation

Yuki Hagiwara, Sho Fujii (Fac. Agri. Life Sci., Hirosaki Univ.)

1P015 Intracellular thiol group modifications of transcription factors responsive to polysulfide and reactive oxygen species in purple photosynthetic bacteria

Otoha Takeda[1], Masaru Hashimoto[2], Tatsuru Masuda[3], Takayuki Shimizu[1] ([1]Faculty of Science, Nawa Women's University, [2]Faculty of Agriculture, The University of Tokyo, [3]Graduate School of Arts and Sciences, The University of Tokyo)

1P016 P Acclimation of white-light-adapted *Halomicronema hongdechloris* to different light qualities

Zhe Wang[1], Toshiyuki Shinoda[2], Tatsuya Tomo[2], Seiji Akimoto[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Grad. Sch. Sci., Tokyo Univ. Sci.)

1P017 P Structural analysis of the phycobilisome in the primitive red alga *Cyanidioschyzon merolae*

Yuya Fujita[1,2], Soichiro Seki[2], Akihiro Kawamoto[1,2], Yuu Hirose[3], Genji Kurisu[1,2] ([1]Osaka University, Grad. Eng., [2]Osaka University, Institute for Protein Research (IPR), [3]Toyohashi Tech., Grad. Sch. Appl. Chem. Life Sci.)

1P018 P Photosynthetic responses in the high-oil accumulating diatom, *Fistulifera solaris*

Haruka Yamamoto[1], Ginga Shimakawa[2], Yoshinori Tsuji[1], Tsuyoshi Tanaka[3], Yoshihiko Nishimura[4], Yusuke Matsuda[1] ([1]Dept. Biosci., Sch. Sci. Tech., Kwansei Gakuin Univ., [2]Kobe University Agriculture science Dept. Biol. Environ. Sci., Kobe Univ, [3]Inst. Engin, Tokyo Univ. Agricul. Technol., [4]Electric Power Development Co., Ltd)

1P019 P Structural analysis of the photosystem I-light harvesting I supercomplex from a cryptophyte alga *Rhodomonas sp.* (NIES-2332)

Wenyue Zhang[1], Mizuki Ishii[2], Nozomi Yonehara[2], Haowei Jiang[2], Romain La Rocca[3], Pi-Cheng Tsai[3], Hongjie Li[3], Koji Kato[3], Fusamichi Akita[3], Jian-Ren Shen[3] ([1]Graduate School of Natural Science and Technology, Okayama University, [2]Graduate School of Environmental, Life, Natural Science and Technology, Okayama University, [3]Research Institute for Interdisciplinary Science, Okayama University)

1P020 P Energy dessipation mechanism of the desert green alga *Chlorella ohadii* during desiccatioin

Soma Kawamura[1,2], Makio Yokono[1,2], Chiyo Noda[1], Jun Minagawa[1,2] ([1]NIBB, [2]SOKENDAI)

1P021 P Pyrenoid localization factors PtBST3 and Ptθ-CA1 pyrenoid transfer mechanisms in *Phaeodactylum tricornutum*

Karin Niwa, Minori Nigishi, Yusuke Matsuda (Bioscience, Biological and Environmental Sciences, Kwansei Gakuin Univ)

1P022 P Characterization of the chloroplast envelope-localized Ycf10 and DLDG1 proteins involved in plastidial pH regulation in *Arabidopsis*

Elham Esmailpourmoghadam[1], Issei Nakazato[2], Shin-ichi Arimura[2], Shinji Masuda[1] ([1]Dept. Life Sci & Tech., Science Tokyo, [2]Grad. Sch. Agri & Life Sci., Univ. Tokyo)

1P023 P Characterization of VIPP1 protein C-terminally tagged by GFP and overexpressed in tobacco chloroplasts

Sarah W. Gachie[1], Alexandre Muhire[1], Akihiro Kawamoto[2], Noriko Takeda-Kamiya[3], Yumi Goto[3], Mayuko Sato[3], Kiminori Toyooka[3], Ryo Yoshimura[1], Tsuneaki Takami[1], Lingang Zhang[4], Genji Kurisu[2], Toru Terachi[5], Wataru Sakamoto[1] ([1]Institute of Plant Science and Resources, Okayama University, Kurashiki, Okayama 710-0046, Japan, [2]Institute for Protein Research, Osaka University, Suita, Osaka 565-0871, Japan, [3]Center for Sustainable Resource Science, RIKEN, Yokohama, Kanagawa 230-0045, Japan, [4]School of Life Sciences, Inner Mongolia University/Key Laboratory of Herbage and Endemic Crop Biotechnology, Hohhot, 010070, China, [5]Faculty of Life Sciences, Kyoto Sangyo University, Kita-ku, Kyoto 603-8555, Japan)

1P024 Exploring Key Yield Factors in Sorghum Related to the Photosynthesis Pathway

Shinya Koizumi, Hiroto Naiki (TOYOTA MOTOR CORPORATION)

■ Primary metabolism

1P025 A Comparative Analysis of Respiration Rate Determinants in Sorghum Varieties

Miki Kitamoto, Shinya Koizumi (TOYOTA MOTOR CORPORATION)

1P026 P Investigation of the Role of the Transcription Factor OsHHO3 in Regulating the Balance between Carbon and Nitrogen Acquisition in Rice

Tomoya Hayashi, Yasuhito Sakuraba, Shuichi Yanagisawa (AgTECH, Grad. Sch. Agri. Life Sci., Univ. of Tokyo)

1P027 P Analysis of phospholipid degradation mechanism under phosphate starvation in *Marchantia polymorpha*

Kota Takahara[1], Kimitsune Ishizaki[2], Mie Shimojima[1] ([1]Sch. Life Sci. Tech., Inst. Sci. Tokyo, [2]Grad. Sch. Sci., Kobe Univ)

1P028 Introduction of Heterologous phaC gene into Purple Non-Sulfer Bacteria for PHBH Production

Kako Miura (Grad. Sch. Sci. Technol. Innov)

1P029 Functional Augmentation of the Purine Catabolic Pathway upon Angiosperm Evolution

Yuta Takeuchi, Kyoichi Kuriyama, Hiroshi Shimada, Atsushi Sakamoto (Grad. Sch. Integr. Sci. Life, Hiroshima Univ.)

1P030 Creation and selection of preferentially expressing strain of alternative nitrogenase in the cyanobacterium *Anabaena* sp. PCC 7120 and evaluation of its usefulness in hydrogen production

Takeshi Sato[1,2], Shunpei Uchida[1], Tatsuki Kamochi[1], Haruka Nakaji[1], Masaharu Kitashima[3], Hidehiro Sakurai[2], Kazuhito Inoue[2,3] ([1]Dept. Biol. Sci., Kanagawa Univ., [2]Res. Inst. Integr. Sci., Kanagawa Univ., [3]Dept. Biochem. Biotech., Kanagawa Univ.)

1P031 Functional analysis of phosphocholine in Arabidopsis roots

Moe Ito[1,2], Van Nguyen[2], Misako Kato[1], Yuki Nakamura[2,3] ([1]Fac Sci, Ochanomizu Univ, [2]RIKEN CSRS, [3]Grad Sch Sci, Univ Tokyo)

1P032 TALEN-mediated targeted editing of polyphosphate synthetase and lipase genes enhances oil accumulation under phosphorus starvation in oleaginous microalga *Nannochloropsisoceanica*

Kumiko Okazaki[1], Masako Iwai[2], Tomokazu Kurita[3], Koichi Hori[4], Mie Shimojima[4], Shinichiro Maeda[5], Akihide Takami[5], Takashi Yamamoto[1,3], Hiroyuki Ohta[2,4], Atsushi Sakamoto[1] ([1]Grad. Sch. Integr. Sci. Life, Hiroshima Univ., [2]Phytolipid Technologies, [3]Genome Editing Innov. Center, Hiroshima Univ., [4]Sch. Life Sci. Tech., Inst. Sci. Tokyo, [5]Tech. Res. Center, Mazda Motor Corp.)

1P033 Investigation of the dual functions of γ-glutamyl peptidase in sulfur metabolism in *Arabidopsis thaliana*

Takehiro Ito[1], Ryosuke Sugiyama[2,3], Hiroki Harata[4], Haruna Aoyama[4], Naoko Ohkama-Ohtsu[1,5] ([1]Inst. Agr., Tokyo Univ. Agr. & Technol., [2]Grad. Sch. Pharm. Sci., Chiba Univ., [3]PMSC, Chiba Univ., [4]Fac. Agr., Tokyo Univ. Agr. & Technol., [5]GIR, Tokyo Univ. Agr. & Technol.)

1P034 Characteristic Changes in Phytases Induced by Germination and Interspecific Differences Among Cereal Grains

Rioko Shibusawa, Tatsuki Akabane, Shota Kojima, Yusei Yamauchi, Naoki Hirotsu (Grad. Sch. Life Sci., Univ. Toyo)

■ Specialized (secondary) metabolism

1P035 Influence of light availability and wavelength on growth, 2-MIB production, and the expression of genes associated with 2-MIB biosynthesis in *Pseudanabaena foetida*

Kaushalya Dayarathne, Toshiki Ishikawa, Aikeranmu Kadeer, Masatoshi Yamaguchi, Maki Kawai-Yamada (Graduate School of Science and Engineering, Saitama University, Saitama, Japan)

1P036 RNA-seq profiling of diterpene metabolism in two chemotypes of medicinal plant *Scoparia dulcis* in Paraguay

Joichi Kawaguchi, Yoshimi Yamamura, Jung-Bum Lee (Grad. Sch. Pharm., Univ. Toyama)

1P037 Investigation of regulatory mechanism on metabolism during seed germination in *Catharanthus roseus*

Mai Uzaki[1], Hiromitsu Tabeta[1], Kotaro Yamamoto[2], Masami Hirai[1,3] ([1]RIKEN CSRS, [2]Sch. Sci., Yokohama City Univ., [3]Grad. Sch. Agricul. Sci., Nagoya Univ.)

1P038 P Biochemical studies on biosynthetic pathway of fairy chemicals in rice

Futa Morii[1], Jae-Hoon Choi[1,2,3,4,5], Yu Tokuoka[1], Tomoya Kawaminami[2], David C. Nelson[6], Hideo Dohra[4,5], Takahito Nomura[7], Hirofumi Hirai[1,2,3,4,5], Hirofumi Kawagishi[2,5] ([1]Grad. Sch. of Inte. Sci. and Tech., Shizuoka Univ., [2]Fac. Agr., Shizuoka Univ., [3]Fac. Glob. Int. Sci. Inno., Shizuoka Univ., [4]Res. Inst. Green Sci., Shizuoka. Univ., [5]Res. Inst, Mushroom Sci. Tech., Shizuoka Univ., [6]Bot. Plant Sci., UCR, [7]C-Bio, Utsunomiya Univ.)

1P039 P Analysis of Terpene-storing Lipid Droplets in *Zingiber officinale* (ginger)

Mayuko Naganawa, Ana Carolina Vilchez, Till Ischebeck (IBBP, Univ. Münster)

■ Biomembrane/Ion and solute transport

1P040 P Analysis of Mechanisms Underlying the Interplay between Nitrate and Potassium Acquisition in Arabidopsis

Kosuke Usuda, Mailun Yang, Yasuhito Sakuraba, Shuichi Yanagisawa (AgTECH., Grad. Sch. Agri. Life Sci., Univ. of Tokyo)

1P041 P A point mutation in a borate transporter BOR2 increases low-boron tolerance by enhancement of root-to-shoot translocation of boron and its distribution in leaves in *Arabidopsis thaliana*

Yo Tokunaga[1], Ena Fushiki[1], Kyoko Miwa[2] ([1]Grad. Sch. Environ. Sci., Hokkaido Univ., [2]Faculty of Environ. Earth Sci., Hokkaido Univ.)

1P042 P Multi-year field trials indicate that Autophagy plays a role in the Formation of Vertical Leaf Nitrogen Gradient and the Efficient Use of Nitrogen for biomass production in the Rice Population

Wataru Kikuchi, Hiroyuki Ishida (Grad. Sch. Agri. Sci., Tohoku Univ.)

1P043 P Analysis of PM H^+-ATPase phosphorylation mechanism in guard cells by protein kinase inhibitors

Shogo Kuwayama[1], Koji Takahashi[1], Maki Hayashi[2], Yuki Hayashi[1], Kohei Fukatsu[1], Yusuke Aihara[3], Keiko Kano[4], Emi Mishiro-Sato[4], Ayato Sato[4], Toshinori Kinoshita[1,4] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Grad. Sch. Life Sci., Tohoku Univ., [3]Grad. Sch. Sci., Kobe Univ., [4]ITbM , Nagoya Univ.)

1P044 Evaluation of Salt Tolerance in Arabidopsis Overexpressing Three Na^+ Transporters

Satoshi Yoshida, Takeshi Uchiyama, Masaru Tsujii, Yasuhiro Ishimaru, Nobuyuki Uozumi (Graduate School of Engineering., Univ. Tohoku)

1P045 Phosphorylation of AtALMT12 activate malate transport function

Takayuki Sasaki[1], Hinano Takase[2], Taishi Umezawa[2], Izumi C. Mori[1] ([1]IPSR, Okayama Univ., [2]BASE, Tokyo Univ. Agric.)

1P046 Attempts to Modify Na^+ Transport Activity of OsHKT1;5, a Salt Tolerance Determinant in Rice (*Oryza sativa*), by Amino Acid Substitutions

Hikari Yamazaki[1], Maki Katsuhara[2], Natsuko I. Kobayashi[3], Keitaro Tanoi[3], Tomoaki Horie[1] ([1]Grad. Sch., Div. Appl Biol., Shinshu Univ., [2]IPSR, Okayama Univ., [3]Grad. Sch., Agric. Life Sci., Univ. Tokyo)

1P047 Identification and functional analysis of flavin transporters in Arabidopsis thaliana

Rui Shibata, Takanori Maruta, Takahiro Ishikawa, Takahisa Ogawa (Grad. Sch. Nat. Sci. Technol., Shimane Univ.)

1P048 Estimation of calcium spatiotemporal dynamics in large-fruits tomato plants using strontium as a tracer

Takuma Hirashima, Yusuke Shikanai, Akihiro Saito, Kyoko Higuchi (Grad. Appl. Biosci., Tokyo Univ. Agri)

■ Membrane trafficking

1P049 The epidermal chloroplast formation in the pathogen responses mediated by SYP4

Aimi Taura[1], Sae Endo[2], Yoko Ito[3], Emi Ito[4], Takashi Yaeno[5], Tomohiro Uemura[1,2,3,6] ([1]Faculty of Science, Ochanomizu Univ., [2]Grad. Sch. Humanities and Sciences., [3]EHLS., Ochanomizu Univ., [4]JSPS Researcher, [5]Department of Agriculture, Ehime Univ., [6]Faculty of Core Research, Natural Science Div., Ochanomizu Univ.)

1P050 Localization and functional analyses of *Arabidopsis* GOS1

Yoko Ito[1], Akihiko Nakano[2], Tomohiro Uemura[3] ([1]IHLS, Ochanomizu Univ., [2]RIKEN RAP, [3]Grad. Sch. Humanities and Sciences, Ochanomizu Univ.)

1P051 SYLK (Syntaxin 6-like protein in vascular plants), a Golgi localized factor specific to vascular plants in tomato

Momoko Kaneko[1], Emi Ito[2,3], Yoko Ito[4], Koichi Sugimoto[5,6], Tomohiro Uemura[1,3] ([1]Faculty of Science, Ochanomizu Univ., [2]JSPS Researcher, [3]Faculty of Core Research, Natural Science Div., Ochanomizu Univ., [4]IHLS., Ochanomizu Univ., [5]Faculty of Life and Environmental Sciences, University of Tsukuba, [6]Tsukuba-Plant Innovation Research Centre, University of Tsukuba)

■ Organelles/Cytoskeleton

1P052 TIC236 Interacts with OEP80 and Is Involved in OEP80 Complex Formation

Kotaro Goto[1], Alika Andjani Widada[1], Syun Minamikawa[1], Ryo Yoshimura[1], Takamasa Suzuki[2], Yasuomi Tada[3], Mika Nomoto[3], Emi Mishiro-Sato[4], Yasushi Yoshioka[1] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Coll. Biosci. Biotech., Chubu Univ., [3]Cent. Gene Res., Nagoya Univ., [4]WPI-ITbM, Nagoya Univ.)

1P053 Elucidation of the translation mechanism in chloroplasts using tag lines in Arabidopsis thaliana

Sakura Takahira, Minori Yamashita, Ai Muramatsu, Reiko Motohashi (Agri., Shizuoka Univ.)

1P054 Exploration of proteins connecting the nucleus and chloroplasts

Kosei Saika[1], Tatsuo Kakimoto[1], Yuki Sakamoto[2] ([1]Grad.Sch.Sci., Osaka Univ, [2]Grad.Sch.Sci., Shinshu Univ)

1P055 Analysis of the function of *Arabidopsis thaliana* UCP1 in mitochondrial thermogenesis

Hiroki Matsui, Takashi Fukada, Noriko Inada (Osaka Metropolitan Univ., Schl. Of Agri)

1P056 An unraveling of plant organellar editosome by proximity labelling

Deborah Marie Schatz, Mizuki Takenaka (Grad. Sch. Sci., Univ. Kyoto)

1P057 Parameter Estimation of Cortical Microtubule Band Movement Using a Microtubule Agent-Based Simulation

Tomonobu Nonoyama[1], Zichen Kang[1], Hikari Matsumoto[2], Sakumi Nakagawa[2], Minako Ueda[2], Satoru Tsugawa[1] ([1]Akita-prefectual University, [2]Tohoku University)

1P058 Identification of novel peroxisome membrane proteins in plants

Junpei Takagi[1], Satoshi Nozaki[2], Emi Mishiro-Sato[3], Takeo Sato[1], Haruko Ueda[2], Ikuko Hara-Nishimura[2] ([1]Fac. Sci., Hokkaido Univ., [2]Fac. Sci. and Eng., Konan Univ., [3]WPI-ITbM, Nagoya Univ.)

1P059 Identification of Suppressor Mutation for Chloroplast EGY1 Protease Mutant

Kenta Maezaka, Yang Fee Kim, Yusuke Kato (Setsunan Univ. Faculty of Agriculture)

1P060 P A novel method for generating marker-free transplastomic plants utilizing both positive and negative selection markers

Ayu Osonoe[1], Naomi Ishikawa[2], Yuuto Matsumura[1], Sayoko Kuwata[2], Yoichi Nakahira[2] ([1]Grad. School Agri., Ibaraki Univ., [2]Coll. Agri., Ibaraki Univ.)

1P061 P Exploring for regulating factors of chloroplast positioning in *Physcomitrium patens* using TurboID

Chie Mitsui[1], Hina Yadome[1], Tsuyoshi Aoyama[2], Keiko Kano[2], Emi Mishiro-Sato[2], Yoshikatsu Sato[1,2] ([1]Grad. Sch. Sci., Nagoya Univ, [2]ITbM., Nagoya Univ)

1P062 P Roles of potential methyltransferase subunit pTAC14 in plastid RNA polymerase complex

Yushi Kurotaki, Sho Fujii (Grad. Sch. Agri. Life Sci., Hirosaki Univ.)

1P063 P Excision of 641Kb NUMT (Nuclear Mitochondrial DNA) in Arabidopsis thaliana chromosome 2

Rika Nakajima[1], Yugo Ito[2], Yuyang Zhong[2], Shin-ichi Arimura[2] ([1]Grad. Sch. Life Environ Sci., University of Tsukuba, [2]Grad. Sch. Agri. and Life. Sci., University of Tokyo)

1P064 P Accumulation of multiple species-derived mitochondria in wheat for broadening the variety of nucleus-cytoplasm combination

Yukiho Momose[1], Karin Kobayashi[1], Nonoka Onda[1], Aya Satoh[1], Shizuka Koshimizu[2,3], Takayoshi Ishii[4], Takashi Okamoto[1] ([1]Grad. Sch. Sci, [2]Dept. Informatics, NIG, [3]SOKENDAI, [4]ALRC, Tottori Univ)

1P065 P Elucidating the mechanisms of plant chiral growth

Eiki Meguro[1], Masayoshi Nakamura[2] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]Institute of Transformative Bio-Molecules, Nagoya University)

1P066 P The functional analysis of two KCH kinesins at the preprophase band in *Nicotiana tabacum*

Hiroki Kurita[1], Hiroki Yasuhara[2], Ichirou Karahara[3], Yoshinobu Mineyuki[4], Daisuke Tamaoki[3] ([1]Grad. Sci. Eng., Univ. Toyama, [2]Fac. Chem. Mat. & Bioengn., Univ. Kansai, [3]Fac. Sci., Acad. Assemb., Univ. Toyama, [4]Grad. Sch. Life Sci., Univ. Hyogo)

1P067 P Towards the Decoding of Pyrenoid Biogenesis: From Live-imaging to Machine-learning-assisted Discovery

Kojiro Matsuo[1], Takashi Yamano[1,2] ([1]Graduate School of Biostudies, Kyoto University, [2]Center for Living Systems Information Science (CeLiSIS), Kyoto University)

■ Cell cycle/Cell division

1P068 P Kinematic and chromosomal insights into the effects of haploidization on root growth in *Arabidopsis thaliana*

Takafumi Miyashita[1], Suzuka Kikuchi[2], Akitoshi Iwamoto[1,3] ([1]Dept. Biol. Sci., Sch. Sci., Kanagawa Univ, [2]Grad. Sch. Sci. and Technol. for Innov., Yamaguchi Univ, [3]Dept. Biol. Fac. Sci., Kanagawa Univ)

1P069 P The Roles of MYB3R in Cell Division and Differentiation Processes During Male Gametophyte Development

Rihoko Senga[1], Yuji Nomoto[1], Shohei Yamaoka[2], Masaki Ito[1] ([1]Sch. Biol. Sci. & Tech., Kanazawa Univ., [2]Grad. Sch. Biostudies, Kyoto Univ.)

1P070 The role of DEFL peptides in zinc deficiency-induced inhibition of the cell cycle progression in Arabidopsis roots

Ryosuke Kato[1], Naoki Takahashi[2], Izumi C. Mori[3], Mami Kobayashi[1], Yoichiro Fukao[1] ([1]Grad. Life Sci., Ritsumeikan Univ., [2]Sch. Agri., Meiji Univ., [3]IPSR, Okayama Univ.)

1P071 Functional Framework of the Kinetochore and Spindle Assembly Checkpoint in Plants

Pettkó-Szandtner Aladár[1], Zoltán Magyar[1], Shinichiro Komaki[2] ([1]BRC. Szeged., Hungary, [2]Grad. Sch. Biol. Sci., NAIST)

1P072 Identification and functional analysis of SCL28-interacting factors in cell size regulation

Masaki Katagiri, Poyu Chen, Masaki Ito (Sch. Bio. Sci. Tech, Kanazawa Univ.)

1P073 Control of cell size by a GRAS-type transcription factor, SCL28, that localizes in both nuclei and plastids

Yuji Nomoto[1], Hirotomo Takatsuka[1], Keisuke Yamada[1], Yasushi Yoshioka[2], Masaki Ito[1] ([1]Sch. Biol. Sci. Tech., Kanazawa Univ., [2]Grad. Sch. Biol. Sci., Nagoya Univ.)

■ Development/Morphogenesis

1P074 Functional Analysis of CLE in Vascular Pattern Formation in Arabidopsis Roots

Haruka Taito[1], Pingping Qian[1,2], Tatsuo Kakimoto[1] ([1]Grad. Sch. Sci., Univ. Osaka, [2]Sch. Life Sci., Univ. Lanzhou)

1P075 Waving root growth by fine-tuning gravitropic response and frictional contact to the medium surface

Toya Suzuki[1], Koichi Fujimoto[1], Koichi Toyokura[1], Tatsuaki Goh[2] ([1]Grad. Sch. Sci., Univ. Hiroshima, [2]Grad. Sch. Sci., NAIST)

1P076 Functional analysis of transcription factors that interact with APL in phloem formation

Hikaru Fukuda[1], Pingping Qian[1,2], Tatsuo Kakimoto[1] ([1]Grad. Sch. Sci., Osaka Univ., [2]Sch. Life. Sci., Lanzhou Univ.)

1P077 High-polyploidization Induces Large-Scale Gene Expression Changes in Arabidopsis Roots

Suzuka Kikuchi[1], Akitoshi Iwamoto[2] ([1]Grad. Sch. Sci. and Technol. for Innov., Yamaguchi Univ., [2]Dept. Biol., Fac. Sci., Kanagawa Univ.)

1P078 Analysis of plant-specific rRNA processing factor PCP1

Shugo Maekawa (Inst. Nat. Sci., Senshu Univ.)

1P079 Effects of Light and Temperature on Floral Stem Elongation in *Aquilegia flabellata*

Mayu Nakagawa (Ishinomaki Senshu Univ.)

1P080 Functional analysis of ERF transcription factor in vegetative reproduction in *Marchantia polymorpha*

Saori Yamaya[1], Go Takahashi[1], Tomohiro Kiyosue[1], Yuki Hirakawa[2] ([1]Grad. Sch. Sci., Gakushuin Univ., [2]Grad. Sch. Integr. Sci. Life, Hiroshima Univ.)

1P081 The Role of Gibberellin Metabolism in Root Tip Regeneration in *Arabidopsis*

Aoi Ishikawa, Zen Machida, Naoki Takahashi (Sch. Agri., Uinv. Meiji)

1P082 The role of WSB and SCAP1 in *FAMA*-triggered morphological changes of hypocotyl epidermis

Hikari Kitani, Nobutoshi Yamaguchi, Makoto Shirakawa, Toshiro Ito (Grad. Sch. of Biol. Sci., Nara Inst. of Sci. and Tech.)

1P083 Analysis of cell wall localization and polarization in rice egg cells

Takunori Kitta[1], Moeno Tezuka[2], Erika Toda[2,3], Atsuko Kinoshita[2], Takashi Okamoto[2] ([1]Dept. Bio. Sci., Tokyo Metropolitan Univ., [2]Grad. Sch. Sci., Tokyo Metropolitan Univ., [3]Grad. Sch. Agric. Life Sci., Univ. Tokyo)

1P084 Temporal transcriptome analysis and database construction in the petals of Japanese morning glory (*Ipomoea nil*)

Atsushi Hoshino[1,2], Soya Nakagawa[1,2], Hiroyo Nishide[1], Katsuhiro Shiratake[3], Atsushi Nagano[4,5] ([1]Natl. Inst. Basic Biol., [2]SOKENDAI, [3]Grad. Sch. Bioagric. Sci., Nagoya Univ., [4]Facul. Agric., Ryukoku Univ., [5]Inst. Adv. Biosci., Keio Univ.)

1P085 Morphological and physiological studies on the assimilatory filaments in the liverwort *Marchantia polymorpha*

Chihiro Sugiyama[1], Yuuki Sakai[2], Ginga Shimakawa[3], Hidehiro Fukaki[2], Kimitsune Ishizaki[2] ([1]Fac. Sci. Kobe Univ., [2]Grad. Sch. Sci. Kobe Univ., [3]Grad. Sch. Agr. Kobe Univ.)

1P086 Comparative analysis of early-maturing and late-maturing cultivars of *Ginkgo biloba* that were cultivated in Sobue, Inazawa, Aichi, Japan

Tatsuya Shibutani[1], Hirofumi Yamashita[2], Kohta Yamada[3], Yoshie Uchida[3,4], Hakuto Kageyama[4], Masami Kobayashi[1], Kazuhito Inoue[5,6], Hidenobu Uchida[3,5] ([1]Dept. Mat. Sci., Univ. Tsukuba, [2]Dept. Inf. Env. Sci., Kyoto Pref. Univ., [3]Dept. Food Business, Nagoya Bunri Univ., [4]Grad. Sch. Environ. Hum. Sci., Meijo Univ., [5]Res. Inst. Integ. Sci., Kanagawa Univ., [6]Dept. Biochem. Biotechno., Kanagawa Univ.)

1P087 Floral organ number controled by the external organs positioning

Yoshino Mouri, Koichi Fujimoto (Grad. Sch. Sci., Univ. Hiroshima)

1P088 Analysis of sex chromosome evolution in the transition of sexual reproductive systems in liverwort

Yukiko Yasui[1], Giacomo Potente[2], Eita Shimokawa[1], Yuka Umeya[1], Tomoha Tanaka[1], Shogo Kawamura[1], Katsuyuki Yamato[3], Katsushi Yamaguchi[4], Shuji Shigenobu[4], Masaki Shimamura[5], Péter Szövényi[2], Takayuki Kohchi[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]Dept. Systematic and Evolutionary Botany, Univ. Zurich, [3]Fac. Biol. Sci. Technol., Kindai Univ., [4]Trans-Omics Fac., NIBB, [5]Grad. Sch. Integ. Sci. Life, Hiroshima Univ.)

1P089 P Evolutionary Analysis of a Sex Determining Factor in the Transition of Sexual Reproductive Systems in Liverwort

Yuka Umeya[1], Tomoha Tanaka[1], Yuki Akimoto[1], Eita Shimokawa[1], Masaki Shimamura[2], Takayuki Kohchi[1], Yukiko Yasui[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]Grad. Sch. Integrated Sciences for Life, Hiroshima Univ.)

1P090 P Activity of Novel Callus-inducing Compounds

Kotaro Fujino[1], Takumi Ogawa[1], Hayoung Lee[2], Atsushi Nagano[2,3], Motohiro Sonoda[1], Atsushi Okazawa[1] ([1]Grad. Sch. Agric., Osaka Met. Univ., [2]Fac. Agric., Ryukoku Univ., [3]IAB, Keio Univ.)

1P091 P Newly discovered morphological plasticity of root and the regulatory mechanism by phytohormone in amphibious plant *Callitriche palustris*

Tomo Sato[1], Yuki Doll[2], Hiroyuki Koga[1], Hirokazu Tsukaya[1] ([1]Grad. Sch. Sci., Univ. Tokyo, [2]Grad. Sch. Sci. Tech., NAIST)

1P092 P Investigation of the possibility of unifacial leaves in the genus *Curio* (Asteraceae) and the evolutionary process

Mikita Tamura (Fac. of Sci., Univ. Tokyo)

1P093 P Studies on the mechanism of heterophylly in *Juniperus chinensis*

Kazuma Okura[1], Ryota Outi[2], Shuka Ikematu[2], Tomoaki Sakamoto[2], Seisuke Kimura[2] ([1]Grad. Sch. Sci., Univ. KyotoSangyo, [2]Sci., Univ. KyotoSangyo)

1P094 P Functional analysis of bHLH transcription factors in regeneration of *Marchantia polymorpha*

Haruka Mine[1], Aya Iwaki[2], Emi Hainiwa[2], Shohei Yamaoka[2], Shota Yamauchi[1], Takayuki Kohchi[2], Ryuichi Nishihama[1] ([1]Department of Applied Biological Science, Faculty of Science and Technology, Tokyo University of Science, [2]Graduate School of Biostudies, Kyoto University)

1P095 P Functional Analysis of *Physcomitrium patens INDETERMINATE DOMAIN 5* (*PpIDD5*)

Ren Yamada[1], Masaki Ishikawa[2], Mitsuyasu Hasebe[2], Akiko Kozaki[1] ([1]Grad. Sch. bio., Shizuoka Univ, [2]Div. evo. bio., NIBB)

1P096 P The distribution and the function of plant hormone in fern *Ceratopteris richardii*

Yuta Hanada[1], Eiki Kawarabuki[2], Satoshi Naramoto[3,4] ([1]Sch. Sci. Hokkaido. Univ., [2]Grad. Sch. Life Sci. Hokkaido Univ., [3]Faculty Sci. Hokkaido Univ., [4]PRESTO, JST)

1P097 P Characterization of the frilled petal mutant in *Torenia fournieri* induced by heavy-ion-beam irradiation

Takahiro Mayuzumi[1], Kotaro Ishi[2], Keichi Takagi[3], Masanori Hatashita[3], Mikiko Kojima[4], Yumiko Takabayashi[4], Hitoshi Sakakibara[4,5], Tetsuya Higashiyama[6], Tomoko Abe[7], Yusuke Kazama[1,7] ([1]Fac. Biosci. Biotech., Fukui Pref. Univ, [2]NIRS, QST, [3]Wakasa-wan Ener. Cent, [4]RIKEN Center for Sustainable Resource Science, [5]Department of Applied Biosciences, Graduate School of Bioagricultural Sciences, Nagoya Univ, [6]Department of Biological Sciences, Graduate School of Science, Tokyo Univ, [7]RIKEN Nishina Center)

■ Reproduction

1P098 P Analysis of the target candidates of BONOBO-LRL/DROP heterodimers involved in the regulation of germ cell differentiation in land plants

Nako Watanabe[1], Yuki Tomita[1], Takuya Miyakawa[1], Keisuke Inoue[1,2], Yoshihiro Yoshitake[1,2], Kazuo Ebine[3,4], Takeshi Nakano[1], Takayuki Kohchi[1], Takashi Araki[1], Shohei Yamaoka[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]CeLiSIS, Kyoto Univ., [3]Div. Cellular Dynamics, NIBB, [4]Grad. Inst. for Adv. Stud., SOKENDAI)

1P099 P Single-nucleus RNA-seq analysis of plant germline differentiation in the liverwort *Marchantia polymorpha* using germline cell-like cell induction system

Takeru Kumagai, Tomoaki Kajiwara, Yoshihiro Yoshitake, Megumi Iwano, Shogo Kawamura, Yukiko Yasui, Shohei Yamaoka, Takayuki Kohchi (Grad. Sch. Biostudies., Kyoto Univ.)

1P100 P Genome-wide exploration of pollen factor(s) interact with pistil reproductive barrier factor in Arabidopsis

Kazuki Hirano[1], Takuya Nagae[1], Hiroki Miura[1], Sota Fujii[1,2], Seiji Takayama[1] ([1]Grad. Sch. of Agric. Life Sci., Univ. of Tokyo, [2]Suntory SunRiSE)

1P101 P Vacuole dynamics in *Arabidopsis thaliana* stigma papilla cells using live imaging

Kazuki Fukushima, Maki Hayashi, Masao Watanabe (Grad. Sch. Life Sci., Tohoku Univ.)

1P102 P The role of the EAR motif in MpBZR3, a regulator of gametangium development in Marchantia polymorpha

Yuki Takabatake[1], Kohei Ogawa[2], Yuzuha Kita[2], Masahiro Kasahara[2], Yuki Kondo[3], Tomoyuki Furuya[2,3] ([1]Sch. Sci., Osaka Univ., [2]Col. Sch. Sci., Ritsumeikan Univ., [3]Grad. Sch. Sci., Osaka Univ.)

1P103 Analysis of the mechanism by which ethylene induces petal abscission

Yuki Furuta, Nobutoshi Yamaguchi, Toshiro Ito (NAIST)

1P104 Analyses of SUN protein functions in sperm nuclear fusion during Arabidopsis fertilization

Hanano Horiuchi[1], Shuh-ichi Nishikawa[2] ([1]Grad. Sch. Sci. Tech., Niigata Univ., [2]Fac. Sci., Niigata Univ.)

1P105 Clarifying why endosperm does not develop in orchid seed

Nguyen Thanh Hai Nguyen[1], Ming-Bang Huang[1], Ming-Tsair Chan[1,2], Masaru Ohme-Takagi[1] ([1]Graduate Program in Translational Agriculture Sciences, National Cheng Kung University, Tainan, Taiwan, [2]Agricultural Biotechnology Research Center, Academia Sinica, Tainan, Taiwan)

1P106 Analysis of factors affecting vegetative reproduction in *Rorippa aquatica*

Ren Ariyama (Grad. Sch. Sci., Univ. Kyoto Sangyo)

■ Plant hormones/Signaling molecules

1P107 Detection of plant hormones from Arabidopsis root exudates

Yuri Kanno[1], Mitsunori Seo[1,2] ([1]RIKEN CSRS, [2]TBRC, Univ. Ryukyus)

1P108 Investigation of a non-canonical strigolactone pathway using *Nicotiana benthamiana*

Shiho Jitsukawa[1], Mayu Kawabuchi[1], Kozue Hiugano[1], Kenji Miura[2], Mikihisa Umehara[3], Takahito Nomura[1] ([1]Ctr. of Biosci. Res. and Edu., Utsunomiya Univ., [2]Fac. of Life and Environ. Sci., Univ. of Tsukuba, [3]Grad. Sch. of Life Sci., Toyo Univ.)

1P109 Screening for Arabidopsis mutants defective in self-standability

Masaki Okumura[1], Yusuke Kakei[2], Yukihisa Shimada[1] ([1]Kihara Inst. Biol. Res., Yokohama City Univ., [2]NARO)

1P110 Effect Of TGW6 Inhibitor Candidate Compounds On Field-Grown Rice

Yui Yamaguchi, Tatsuki Akabane, Shota Kojima, Naoki Hirotsu (Grad. Sch. Life Sci., Univ. Toyo)

1P111 Role of 5α-reductase in plant steroid metabolism

Rin Nakamura, Rikuto Hamada, Hitomi Kobuna, Takahito Nomura (Ctr. of Biosci. Res. & Edu., Utsunomiya Univ.)

1P112 Establishment of a method to quantify plant hormones from very small tissues

Yumiko Takebayashi[1], Hiromi Suzuki[1,2], Masami Hirai[1], Mitsunori Seo[1,3] ([1]RIKEN, CSRS, [2]School of Bioscience and Biotechnology, Tokyo University of Technology, [3]Tropical Biosphere Research Center, University of the Ryukyus)

1P113 P Analysis of Hormonal Changes and Disease Molecular Responses during Wheat Powdery Mildew Infection

Yuki Sato[1,2,3,6], Yuanjie Weng[1,2,3,4], Taichi Shimazaki[2,3,6], Yuri Kanno[1], Yumiko Takebayashi[1], Kentaro Yoshida[5], Kenichi Nihei[2,4,6], Masanori Okamoto[1,2,3,7] ([1]RIKEN, CSRS, [2]Grad. Sch. Reg. Dev.&Creat., Utsunomiya Univ., [3]C-Bio, Utsunomiya Univ., [4]UGSAS, Tokyo Univ. of Agri.&Tech., [5]Grad. Sch. Agri., Kyoto Univ., [6]Sch. Agri., Utsunomiya Univ., [7]KIBR, Yokohama City Univ.)

1P114 P Analysis of larger berry development mechanism on the bud mutant of 'Delaware'

Hikaru Ishikawa[1], Yasuyuki Togano[2], Tomoki Shibuya[1,3] ([1]United Grad. Sch. Agri. Sci., Univ. Iwate, [2]Shimane Pref., Agri. Tech. Cen., [3]Fac. Agri., Univ. Yamagata)

1P115 P Analysis of phosphorylation domains of brassinosteroid signaling factor BIL7

Senri Nakamura[1], Kaisei Nishida[1], Yusuke Nakamura[1], Ayumi Yamagami[1], Takuya Miyakawa[1], Takehiro Suzuki[2], Naoshi Dohmae[2], Akira Nozawa[3], Tatsuya Sawasaki[3], Tadao Asami[4], Takeshi Nakano[1] ([1]Grad. Sch. Biostudies., Univ. Kyoto, [2]CSRS, Riken, [3]PROS, Ehime University, [4]Grad. Sch. Agri. Life Sci., Univ. Tokyo)

1P116 P Identification of Δ^4-dn-iso-OPDA as a plant hormone in *Marchantia polymorpha* and evolutionary shift in plant hormone biosynthesis

Yuho Nishizato[1], Mai Morikawa[2], Takuya Kaji[1], Akiyoshi Yoda[2], Chini Andrea[3], Junko Kyozuka[2], Solano Roberto[3], Minoru Ueda[1] ([1]Grad. Sch. Sci., Univ. Tohoku, [2]Grad. Sch. Life Sci., Univ. Tohoku, [3]Plant Molecular Genetics Department, National Centre for Biotechnology)

1P117 P Gibberellin signaling in distant cell layers drives root growth, as revealed by sGA-mGID1 pair

Yuichiro Yagami[1], Ryotaro Yamada[1], Yuuma Ishikawa[2], Wolf B. Frommer[2,3], Shinya Hagihara[4], Masayoshi Nakamura[3] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]HHU Düsseldorf, [3]ITbM, Univ. Nagoya, [4]Center for Sustainable Resource Science, RIKEN)

1P118 P Target analysis of promoter of plant growth (PPG) in callus induction

Ryoma Okada[1], Shota Tanaka[2,3], Shun Takeno[2,3], Kotomi Maekawa[1,3], Kazuma Ohata[1], Ayumi Yamagami[1], Shoji Segami[4], Masayoshi Maeshima[5], Yasumitsu Kondo[2], Naoshi Dohmae[2], Hiroyuki Osada[2], Tetsuo Kushiro[3], Tadao Asami[6], Takeshi Nakano[1] ([1]Grad. Sch. Bio., Univ. Kyoto, [2]Inst. CSRS., RIKEN, [3]Grad. Sch. Agri., Univ. Meiji, [4]Inst. Basic Bio., NIBB, [5]Grad. Sch. Bio Agri., Univ. Nagoya, [6]Grad. Sch. Agri Life., Univ. Tokyo)

■ Flowering/Clock

1P119 Modifying the flower shape of *Phalaenopsis* by manipulating orchid transcription factors

Ming-Bang Huang[1], Ming-Tsair Chen[2], Masaru Ohme-Takagi[1] ([1]College of Bioscience and Biotechnology, National Cheng Kung University, [2]ABRC, Academia Sinica)

1P120 Isolation Of *Nicotiana benthamiana FT* Gene Encoding A Florigenic Signal

Nariyuki Furukawa[1], Ken-ichi Kurotani[2], Kappei Kobayashi[1], Michitaka Notaguchi[3], Hidetaka Kaya[1] ([1]Fac. Agri., Ehime Univ., [2]BBC, Nagoya Univ., [3]Grad. sch. Sci, Kyoto Univ.)

1P121 *Pseudo-Response Regulator* (*InPRRs*) Transcription Factors are Involved in Photoperiodic Induction of Flowering and Flower Opening Time in *Ipomoea nil*

Kimiyo Sage-Ono[1,2], Kenta Watanabe[1], Yuki Tada[1], Daiki Takai[1], Eiji Nitasaka[3], Atsushi Hoshino[4,5], Kenta Shirasawa[6], Michiyuki Ono[1] ([1]T-PIRC, Univ. Tsukuba, [2]NIBIOHN, [3]Grad. Sch. Sci., Kyusyu Univ., [4]NIBB, [5]Grad. Inst. Adv. Stu., SOKENDAI, [6]Kazusa DNA Res. Inst.)

1P122 Research to Identify Genes Responsible for Evening Flower Opening in Japanese Morning glory (*Ipomoea nil*)

Daiki Takai[1], Nana Maeda[1], Kimiyo Sage-Ono[1,2], Seika Motoyama[1], Yohei Higuchi[3], Nobuo Nakamura[4], Eiji Nitasaka[5], Atsushi Hoshino[6,7], Kenta Shirasawa[8], Michiyuki Ono[1] ([1]T-PIRC, Univ. Tsukuba, [2]NIBIOHN, [3]Dept Agr Env Biol., Univ. Tokyo, [4]Hakodate Shirayuri Gakuen, [5]Grad. Sch. Sci., Univ Kyushu, [6]NIBB, [7]Grad. Inst. Adv. Stud., Sokendai, [8]Kazusa DNA Res. Inst.)

1P123 Regulation of the circadian clock by quantitative control via alternative splicing of a central oscillator PRR7 in *Arabidopsis thaliana*
Seiya Izawa, Chiaki Teramae, Yusuke Takata, Takafumi Yamashino (Grad. Sch. Bioagri. Sci., Nagoya Univ.)

1P124 Functional analysis of the receiver-like domain of the PRR family that is implicated in the circadian clock in *Arabidopsis thaliana*
Marina Kishi, Seiya Izawa, Chiaki Teramae, Yusuke Takata, Takafumi Yamashino (Grad. Sch. Bioagri. Sci., Nagoya Univ.)

■ Environmental response A/Physiological responses

1P125 P Characterization of a novel compound that inhibits haustorium induction in the parasitic plant *Strigahermonthica* and gravitropism in *Arabidopsis thaliana*
Chika Tsuboyama[1], Natsuki Sato[1], Ayato Sato[2], Takanori Wakatake[1], Satoko Yoshida[1] ([1]NAIST, [2]ITbM, Nagoya Univ.)

1P126 P Analysis of subcellular localization of MIZU-KUSSEI1, a protein essential for root hydrotropism
Kotaro Akita[1], Yutaka Miyazawa[2] ([1]Grad.Sch. Sci & Eng., Yamagata univ, [2]Faculty of Science, Yamagata univ)

1P127 Possibility of RP proteins involvement in potassium response in *Arabidopsis thaliana*
Mobina Ulfat[1,2], Naoyuki Sotta[1], Arpna Kumari[1], Dichao Ma[1], Shuying Li[1], Toru Fujiwara[1] ([1]Gad. Sch. Agri. Sci., Univ. Tokyo, [2]Lahore College for Women Univ., Lahore, Pakistan)

1P128 Three-dimensional morphological analysis of the gametophore of *Physcomitrium patens* by X-ray micro-CT
Keisuke Tabata[1], Naoki Yagihara[2], Miyu Senryu[2], Ryohei Yamaura[2], Daisuke Tamaoki[3], Hiroyuki Kamachi[3], Toshiaki Kozuka[4], Daisuke Yamauchi[5], Yoshinobu Mineyuki[5], Masato Hoshino[6], Kentaro Uesugi[6], Yuji Hiwatashi[7], Yuko Hanba[8], Atsushi Kume[9], Tomomichi Fujita[10], Ichirou Karahara[3] ([1]Fac. Sci., Univ. Toyama, [2]Grad. Sch. Sci. Eng., Univ. Toyama, [3]Fac. Sci., Univ. Toyama, [4]Col. Sci. Eng., Kanazawa Univ., [5]Grad. Sch. Sci., Univ. Hyogo, [6]JASRI, SPring-8, [7]Sch. Food Ind. Sci., Miyagi Univ., [8]Dept. Applied Biol., Kyoto Inst. Technol., [9]Fac. Agric., Kyushu Univ., [10]Fac. Sci., Hokkaido Univ.)

1P129 Elucidation of PP2C.D function in stomatal movements
Kosuke Murakami[1], Yuki Hayashi[1], Yohei Takahashi[1,2], Daichi Kinoshita[1], Miya Mizutani[3], Yoshikatsu Matsubayashi[1], Toshinori Kinoshita[1,2] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]ITbM., Univ. Nagoya, [3]Grad. Sch. Bio., NAIST)

1P130 Analysis of C1 Raf-like kinase BHP in light-induced stomatal opening
Akinori Tange[1], Yuki Hayashi[1], Taku Sakakibara[1], Maki Hayashi[2], Yoshikatsu Matsubayashi[1], Toshinori Kinoshita[1,3] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]Grad. Sch. Life Sci., Tohoku Univ., [3]WPI-ITbM, Univ. Nagoya)

■ Environmental response B/Environmental stresses

1P131 P 14-3-3 protein that functions as a downstream factor of BAM receptor mediates root development
Ami Omata[1], Takeru Nakayama[1], Torataro Kurumida[1], Fuminori Takahashi[2] ([1]Grad. Sch. Fac. Adv. Eng., TUS, [2]Fac. Adv. Eng., TUS)

1P132 P Elucidating The Role of A Novel Peptide in Salt Tolerance of Lateral Roots in *Arabidopsis thaliana*
Sachi Esumi, Yoichiro Fukao (Grad. Sch. Life Sci., Ritsumeikan Univ.)

1P133 P Fructan accumulation is associated with changes in freezing tolerance under diurnal temperature fluctuations
Takuma Kikuchi[1], Sushan Chowhan[2], Toshihisa Kotake[1], Daisuke Takahashi[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Bangladesh Inst. Nucl. Agr.)

1P134 P Functional analysis of BZR1 and BES1-mediated growth regulations for suppressing drought stress responses
Xinai Wu (Grad. Sch. Fac. Adv. Eng., TUS)

1P135 P Identification of a NaCl sensing receptor-like protein in *Arabidopsis*
Yun Fan, Tomoko Hirano, Masa H. Sato (Graduate School of Life and Environmental Sciences, Kyoto Prefectural University)

1P136 P Elucidation of salt stress response mechanisms by B4 Raf-like kinase in *Marchantia polymorpha*
Tomoki Kuribayashi[1], Shota Yamauchi[1], Eri Koide[2], Asuka Shintaku[2], Nodoka Handa[1], Takayuki Kohchi[2], Ryuichi Nishihama[1] ([1]Dept. Appl. Biol. Sci., Fac. Sci. Tech., Tokyo Univ. Sci., [2]Grad. Sch. Biostudies, Kyoto Univ.)

1P137 Investigation of the hormesis effect of bismuth on the growth of Arabidopsis thaliana
Takeshi Nagata, Naoya Ura, Tsukasa Kobayashi, Haruka Nakamura (Setsunan Univ.)

1P138 P Elucidation that effect of Ti on plant growth in *Arabidopsis thaliana*
Kazuki Indo[1], Tokuma Oiwa[2], Takeshi Nagata[2] ([1]Setsunan univercity graduate school of science and engneering life science, [2]Setsunan univercity paculty of science and engneering)

1P139 Detection of changes in gene expression during exposure to low-doses of radiation using *Arabidopsis thaliana*

Shinya Takahashi[1,2], Satoru Araya[2], Masanori Tamaoki[3] ([1]ILES, Univ. Tsukuba, [2]BRES, Univ. Tsukuba, [3]Biodiversity Div., Natl. Inst. Env. Stud.)

1P140 Analysis of the mechanisms of antagonism between ABA and ethylene in the oxygen supply system induced by hypoxia in rice roots

Momoka Kojima, Akihisa Shinozawa, Kanna Izawa, Shin-ichi Nakamura (Dept. Bioscience, Tokyo Univ. Agric.)

1P141 Cytosolic ascorbate peroxidase 1 regulates cell death and DNA damage response via glutathione redox control

Satsuki Sato, Kana Kikuraku, Gen Mitomi, Takanori Maruta (Grad. Sch. Nat. Sci. Technol., Shimane Univ.)

1P142 Ascorbate Recycling System Protects Cells from Photooxidative Stress Through a Mechanism Independent of Ascorbate Pool Size

Akane Hamada[1,2], Takanori Maruta[1,2] ([1]Grad. Sch. Nat. Sci. Technol., Shimane Univ., [2]United Grad. Sch. Agr. Sci., Tottori Univ.)

1P143 Stress Turns Sweet: *O*-GlcNAcylation in Salt Response of *Arabidopsis*

Pei-Wen Lo[1], Keiko Kano[1], Jiun-Jie Shie[2], Emi Mishiro-Sato[1], Masayoshi Nakamura[1] ([1]ITbM, Nagoya University, [2]Institstute of Chemistry, Academia Sinica (Taiwan))

1P144 Identification of Novel Factors Mediating Oxidative Stress-Induced Cell Death in Arabidopsis Catalase-Deficient Mutants

Nanami Fujimoto[1], Itsuka Nakashima[2], Kana Ishibashi[1], Takanori Maruta[1,2,3], Amna Mhamdi[3], Frank Van Breusegem[3] ([1]Grad. Sch. Nat. Sci. Technol., Shimane Univ., [2]Life Environ. Sci., Shimane Univ., [3]Plant Systems Biol., VIB-Ghent Univ.)

1P145 Analysis of environmental factors causing blossom-end-rot in soil-grown Micro-Tom

Yusuke Shikanai, Natsuki Yamamoto, Akihiro Saito, Kyoko Higuchi (Agri. chem., Tokyo Univ. Agri.)

1P146 WRKY transcription factors mediate stress tolerance under fluctuating environments in *Arabidopsis*

Hiroshi Mori[1], Mika Nomoto[1,2,3], Emi Okada[1], Susumu Uehara[2], Fumika Okamoto[1], Kazuha Mori[1], Takakazu Matsuura[4], Tsuyoshi Mori[1], Tomotaka Itaya[2], Takuya Nagae[5,6], Yu Saito[1], Sumire Fujiwara[7], Hiroki Tsutsui[8], Hiroshi Takagi[2,8], Takaya Ogawa[8], Tetsuya Higashiyama[5,9], Nobutaka Mitsuda[7], Hirofumi Yoshioka[8], Izumi C. Mori[4], Yoshiharu Y. Yamamoto[10], Yasuomi Tada[1,2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Centr. Gene Res., Nagoya Univ., [3]JST, PRESTO, [4]Inst. Plant Sci. Resour. (IPSR), Okayama Univ., [5]Inst. Transform. Bio-Mol. (WPI-ITbM), Nagoya Univ., [6]Dep. Appl. Bio. Chem., Grad. Sch. Agri. Life Sci., Univ. Tokyo, [7]Bioprod. Res. Inst., Natl. Inst. Adv. Ind. Sci. Technol. (AIST), [8]Grad. Sch. Bioagric. Sci., Nagoya Univ., [9]Dep. Biol. Sci., Grad. Sch. Sci., Univ. Tokyo, [10]Appl. Biol. Sci., Gifu Univ.)

1P147 Synergistic Brassinosteroid and AsA/GSH Pathway Signaling Promotes Flowering via BZR1-PIF4 Interaction in Oncidium Orchid Under Prolonged Heat Stress

Senthil Kumar Rajendran, Hui-Ju Chiang, Kehao Wu, Shih-Han Cheng, Ching-Hui Yeh (Department of Life Science, National Central University, Zhongda Road, Zhongli District, Taoyuan City, Taiwan ROC)

1P148 Involvement of KATANIN1, a microtubule-severing enzyme, in hypergravity-induced modification of growth anisotropy in Arabidopsis hypocotyls

Takayuki Hattori[1], Sayoko Hishii-Higuchi[2], Hiroko Inoue[2], Takehide Kato[3], Takashi Hashimoto[3], Kazuyuki Wakabayashi[1], Takayuki Hoson[2], Kouichi Soga[1] ([1]Grad. Sch. Sci., Osaka Metropol. Univ., [2]Grad. Sch. Sci., Osaka City Univ., [3]Grad. Sch. Biol. Sci., Nara Inst. Sci. Tech.)

1P149 [Cancelled]

1P150 Redefining the development of the awn and its physiological role through the history of rice breeding in Japan

Mao Suganami[1], Hideki Yoshida[1], Makoto Matsuoka[1], Soichi Kojima[2] ([1]Faculty of Food and Agricultural Sciences, Institute of Fermentation Sciences, Fukushima University, [2]Graduate School of Agricultural Science, Tohoku University)

1P151 Identification and Functional Analysis of Novel Factors Involved in the Combined Stress Responses in *Arabidopsis*

Shunsuke Adegawa, Shoutaro Okiyama, Tomohiro Takeuchi, Naoki Takahashi (Sch. Agric., Meiji Univ.)

1P152 Effect of Overexpression of an RNA Chaperone Gene Derived from Ice Plant on Salinity and Osmotic Stress Tolerance in Poplar

Taichi Oguchi[1,2], Shiryu Hasegawa[1], Miho Imakita[1], Yuhei Shikakura[1] ([1]Life Env. Sci., Univ. Tsukuba, [2]T-PIRC, Univ. Tsukuba)

1P153 An elucidation of mechanisms of drought tolerance in parsley

Ayaka Hosotani[1], Rikako Hirata[2], Akira Mine[2], Eri Kamon[1], Takeshi Ishimizu[1,3], Kazuya Ishikawa[3] ([1]College of Life Sciences, Ritsumeikan University, [2]Graduate School of Agriculture, Kyoto university, [3]R-GIRO, Ritsumeikan University)

1P154 Increase in *N*-acetylglucosamine-related substances and enhancement of abiotic stress tolerance through moderate activation of the hexosamine pathway in *Arabidopsis thaliana*

Masataka Murakami[1], Yousuke Matoba[1], Hisashi Nishiwaki[2], Yasushi Sato[1] ([1]Grad. Sch. Sci. Eng., Ehime Univ., [2]Grad. Sch. Agr., Ehime Univ.)

1P155 Involvement of Mitochondrial/Chloroplastic Monodehydroascorbate Reductase (MDAR5/6) in Sensitivity to Aromatic Nitro Compounds in Arabidopsis

Natsumi Taniguchi[1], Naoya Kashima[2], Satoshi Sano[1] ([1]Grad. Sch. Life Envr. Sci., Kyoto Pref. Univ., [2]Fac. Life Envr. Sci., Kyoto Pref. Univ.)

1P156 Investigation of conditions inducing the UV-absorbing compound in the cyanobacterium *Gloeocapsa* sp. BRSZ strain newly isolated from a hot spring in Thailand

Taiki Aono[1], Sasiprapa Samsri[2], Rungaroon Waditee-Sirisattah[2], Hakuto Kageyama[1] ([1]Grad. Sch. Env .Hum. Sci., Meijo Univ., [2]Chulalongkorn Univ.)

1P157 Seasonal variation of alkaloid profile in *Amsonia elliptica*

Kotaro Yamamoto[1], Takayuki Azuma[2] ([1]Sch. Sci., Yokohama City Univ., [2]Botanic Garden, FSC, Hokkaido Univ.)

1P158 How do silicon dioxide nanoparticles alleviate salt stress during early development in sorghum and rice?

Ryoichi Araki[1,2], Hidetoshi Miyazaki[3], Ping An[4] ([1]Fac. Edu., Wakayama Univ., [2]Ctr. Food Agric. Res. Edu., Wakayama Univ., [3]Sci. Res. Unit, Glb. Environ. Forum, [4]Arid Land Res. Ctr., Tottori Univ.)

■ Plant-organism interaction A

1P159 Contribution of ARF5 and Dof transcription factors on the feeding cell establishment by plant-parasitic root-knot nematodes

Daiki Matsunaga[1], Mizuki Yamada[2,3], Shingo Sakamoto[4], Nobutaka Mitsuda[4], Shinichiro Sawa[1,2,3] ([1]Faculty of science, Kumamoto Univ, [2]FAST, Kumamoto Univ, [3]IRCAEB, FAST, Kumamoto Univ, [4]BPRI, AIST)

1P160 Phytoplasma and Its Application in Orchids

Shunnitsu You (Institute of Biochemistry, National Chung Hsing University, Taichung 402, Taiwan)

1P161 Characterization of LysM receptors with biotinylated chitin oligomers

Wendi Jiang, Shingo Maruyama, Ryota Katakai, Yuna Saito, Ikuma Ogura, Yuta Fukuda, Hanae Kaku (Dept. Life Sciences, Sch. Agriculture, Meiji University)

1P162 Functional analysis of TGA transcription factors in the moss *Physcomitrium patens*

Hiroki Takauo, Teruaki Taji, Yoichi Sakata, Izumi Yotsui (Dept. of Biosci., Tokyo Univ. of Agri.)

1P163 Analysis of whole plant systemic defense responses against herbivores in rice

Ivan Galis[1], Yuko Hojo[1], David Wari[1,2], Tomonori Shinya[1] ([1]Okayama University IPSR, [2]Western Region Agricultural Research Center (Kinki, Chugoku and Shikoku Regions), NARO)

1P164 A pilot study to evaluate the use of World Rice Core Collection in study of plant-insect interactions

Thanh Nhan Ho[1,2], Tomonori Shinya[1], Ivan Galis[1] ([1]Okayama University IPSR, [2]Cuu Long Delta Rice Research Institute, Vietnam)

1P165 P Morphological and chemical defense variation in two *Oryza* cultivars under brown planthopper infestation

Xiaoji Yang, Yuko Hojo, Tomonori Shinya, Ivan Galis (Okayama University Institute of Plant Science and Resources)

1P166 P Functional analysis of a phytopathogenic ascomycete-associated gene in host plant penetration

Arisa Kuramoto[1], Ryushin Yamaguchi[2], Koh Aoki[2], Ayako Tsushima[2] ([1]Coll. Life Environ. Sci., Osaka Pref. Univ., [2]Grad. Sch. Agric., Osaka Metro. Univ.)

1P167 P Functional Analysis of Effectors in Raphanus sativus L. witches'-broom disease

Kaikin Jo, Shunnitsu You (Institute of Biochemistry, National Chung Hsing University)

1P168 P *Volatile Organic Compound Insensitive1* (*VIS1*) Regulates Responses to *Piriformospora indica* VOCs

Pertunia Nxumalo[1], Yi-Ting Chen[2], Nguyen Thanh Hai Nguyen[1], Masaru Ohme-Takagi[1,2], Ming-Tsair Chan[3] ([1]College of Bioscience and Biotechnology, National Cheng Kung University, [2]NCKU-AS Graduate-Program in Translational Agriculture Sciences, Taiwan, [3]Academia Sinica, Agriculture Biotechnology Research Center in Southern Taiwan)

1P169 P Transciptomic changes induced by application of a sulfur-based foliar formulation on orient melon plant

Chien Hao Chai[1], Cheng-Fang Hong[2], Jenn-Wen Huang[1,3] ([1]Doctoral Program in Plant Health Care, Academy of Circular Economy, National Chung Hsing University, Nantou City, 540001, Taiwan., [2]Department of Plant Pathology, National Chung Hsing University, Taichung City, 402202, Taiwan., [3]CH Biotech R&D., LTD., Nantou City, 540001, Taiwan.)

1P170 P Investigate the interaction between induced resistance and leaf bacterial endophytes

Yan-Cheng Mou[1,2,3], Yun-Chu Chen[1,2,3], Wen-Chi Chang[1] ([1]Inst. Tropical Plant Sciences and Microbiology, NCKU, Taiwan, [2]Biotechnology Center in Southern Taiwan, Academia Sinica, Tainan 711, Taiwan, [3]Agricultural Biotechnology Research Center, Academia Sinica, Taipei 115, Taiwan)

■ Plant-organism interaction B

1P171 P Analysis of LysM receptors for chitin-triggered immunity in Parasponia; non-legume host plants of rhizobial symbiosis
Ryo Takaoka[1], Mirei Furuta[1], Souta Kawasaki[1], Kana Miyata[2] ([1]Dept. Life Sciences, Sch. Agriculture, Meiji University, [2]Fac. life sci., Toyo Univ)

1P172 P Elucidation of the root symbiotic microbiome in plants adapted to solfatara fields
Akifumi Murata[1], Mikihito Noguchi[1], Hirokazu Toju[2] ([1]Grad. Sch. Sci., Univ. Kyoto, [2]Grad. Sch. Bio., Univ. Kyoto)

1P173 P Exploring key regulators of intrusive cell differentiation in a parasitic plant, *Phtheirospermum japonicum*
Chiharu Ito[1], Songkui Cui[2], Takamasa Suzuki[3], Satoko Yoshida[1] ([1]Bio. sci., NAIST, [2]KIB, [3]Bio. sci. and Biotech., Chubu Univ.)

1P174 P Aluminum tolerance mechanisms of solfatara plants and involvement of endophytic fungi
Daisuke Aoshima[1], Soshi Osaki[1,2], Akihiro Yamamoto[3], Hayato Maruyama[4], Toshihiro Watanabe[4], Takayuki Nakatsubo[1,5], Jun Wasaki[1,6] ([1]GSISL, Hiroshima Univ., [2]FEIAS, Waseda Univ., [3]Hiroshima Botanical Garden, [4]Grad Sch Agr, Hokkaido Univ., [5]Hiroshima Univ. Museum, [6]S-CNC, Hiroshima Univ.)

1P175 Exploring the mechanism of stomatal opening by a leaf-inhabiting non-pathogenic bacterium
Rikako Hirata[1], Yuniar Devi Utami[2], Kei Hiruma[2], Akira Mine[1] ([1]Grad. Sch. Agr., Kyoto Univ., [2]Grad. Sch. Arts and Sci., Univ. Tokyo)

1P176 Elucidating the molecular basis of Strigolactones and Karrikins-induced signals in plant growth promotion by the beneficial root endophytic fungus *Colletotrichum tofieldiae*
Momoko Takagi, Kei Hiruma (Grad. Sch. Arts and Sci., Univ. Tokyo)

1P177 Towards establishing a forward genetics approach to uncover genetic determinants of mutualism in plant associated fungi
Takuya Wada, Hiromi Haba, Kei Hiruma (Grad. Sch. Art. Sci., Univ. Tokyo)

1P178 Analysis of organelle dynamics in *Lotus japonicus* during the symbiotic infection process
Kazusato Oikawa[1], Sachiko Tanaka[1], Shoji Mano[2], Takashi Soyano[1], Masayoshi Kawaguchi[1] ([1]Divi. Symb. Sys., NIBB, [2]Labo. Orga. Reg., NIBB)

1P179 Contraction of NLR immune receptors during parasitic plant evolution
Takaya Tominaga, Satoko Yoshida (Grad. Sch. Sci. and Tech., NAIST)

■ Genome function/gene regulation

1P180 Functional Analysis of B4-RAF kinases in the moss *Physcomitrium patens*
Maho Mizuno, Izumi Yotsui, Teruaki Taji, Yoichi Sakata (Dept. of Biosci., Tokyo Univ. of Agri.)

1P181 Effect of boron conditions on chromatin structures in Arabidopsis cultured cells
Rina Hidaka[1], Shigeru Hanamata[1], Yuduki Nakamura[2], Shimpei Uraguchi[2], Masako Kiyono[2], Takuya Sakamoto[1] ([1]Fac. Sci. Sci., Kanagawa Univ., [2]Dep. Public Health., Sch. Pharm., Kitasato Univ.)

1P182 Validation of a live imaging tool for histone acetylation in *Arabidopsis thaliana*
Koki Ibayashi[1], Takuya Sakamoto[1], Shigeru Hanamata[1], Mio Shibuta K.[2], Yuko Sato[3], Hiroshi Kimura[4], Sachihiro Matsunaga[5] ([1]Fac. Sci., Kanagawa Univ., [2]Fac. Sci., Yamagata Univ., [3]Med. Inst. Bioreg., Kyushu Univ., [4]Cell Biol. Center, Instit. Innov. Res., Science Tokyo, [5]Grad. Sch. Sci., Univ. Tokyo)

1P183 Activation of the *FERRITIN2* gene in rice endosperm by an adjacent 35S enhancer
Ting-Iun Nieh, Chih-Yun Chen, Shu-Heng Chang, Wilhelm Gruissem (National Chung Hsing University, Taiwan)

1P184 Comprehensive analysis of genes whose expression is under the control of PFP
Yuri Yokoyama[1], Yurina Sugimoto[2], Shin-ichiro Kidou[1,2] ([1]Research Center for Biological Diversity, Nagoya City Univ., [2]Dept. Biol. & Integr. Sci., Nagoya City Univ.)

1P185 The analysis of binding affinity of zooxanthella *Breviolum minutum* CSP to double-stranded DNA
Kota Higashi[1], Rei Tanaka[2], Shizue Yoshihara[1,2] ([1]Dept. Sci., Osaka Metro. Univ., [2]Grad. Sch. Sci., Osaka Metro. Univ.)

1P186 Identification of mRNA Cleavage Sites by the Arabidopsis ER Membrane-localized Stress Sensor Ire1
Honoka Matsumoto, Hitomi Ueda, Nozomu Koizumi, Yuji Iwata (Osaka Metropolitan University)

1P187 Suppression of *NIP5;1* mRNA accumulation under excess boron condition is mediated through an AUGUAA independent mechanism
Mayuki Tanaka[1], Naoyuki Sotta[1], Toru Fujiwara[2] ([1]Gra.d Sch. Agri., Osaka Metropolitan Univ., [2]Grad. Sch. of Agri., Univ. Tokyo)

1P188 Deadenylases in the AtCCR4-NOT Complex: Key Regulators of Arabidopsis Development

Yukako Chiba[1], Haruka Aoyama[1], Yuki Horiuchi[1], Kosuke Kawai[1], Sota Kurachi[1], Kenta Yoshihira[1], Yoshiki Ohmuro[1], Toshihiro Arae[2], Kazuki Motomura[3], Misato Ohtani[2] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Grad. Sch. Front.Sci., Univ. Tokyo, [3]Res. Org. Sci. and Tech., Ritsumeikan Univ.)

1P189 A prokaryotic expression system for plant protein farnesylation demonstrates that *Arabidopsis* AtJ3, when produced and farnesylated in *E. coli*, retains its ability to protect proteins from heat-induced inactivation

Pei-Hua Chang, Jia-Rong Wu, Rida Zohra, Ngoc Kieu Thi Duong, Ching-Hui Yeh, Chung-An Lu, Shaw-Jye Wu (Department of Life Sciences, NCU)

1P190 P Comparative transcriptome analysis of somatic mutant lines to elucidate the mechanism of the fruit shape determination in persimmon

Ayano Horiuchi[1,2], Ryusuke Matsuzaki[3], Noriyuki Onoue[3], Mai Minamikawa[4], Yasutaka Kubo[2], Koichiro Ushijima[2], Takashi Akagi[2] ([1]Grad. Sch. Hort., Chiba Univ., [2]Grad. Sch. Environ. Life Nat. Sci., Okayama Univ., [3]Inst. Fruit Tree and Tea Sci., NARO, [4]IAAR, Chiba Univ.)

1P191 P A time-lapse transcriptome analysis uncovering transitions of the molecular networks in kiwifruit ripening process

Eriko Kuwada[1], Shotaro Higashiyama[1], Tomoka Matsuda[1], Koichiro Ushijima[1], Takashi Akagi[1,2] ([1]Grad Sch Environ, Life, Nat. Sci. & Tech., Okayama University, [2]Nihon BioData Co.Ltd.)

1P192 P Generation of efficient regeneration system for resource crops by transcriptional activation using CRISPR-dCas9

Jo Nishimura[1], Jun Sakaguchi[1], Miki Takehara[1], Satoshi Kidokoro[1], Keishi Osakabe[2], Yuriko Osakabe[1] ([1]Sch. of Life Sci. & Tech., Science Tokyo., [2]Grad. Sch. of Tech., Ind. & Soc. Sci., Tokushima Univ.)

1P193 P Functional analysis of RNA exosome in red light response of *Arabidopsis*

Yoshiro Murakami[1], Tomokazu Ushijima[2], Takamasa Suzuki[3], Mitsuhiko Tomita[4], Noriyuki Suetsugu[5], Tomoo Shimada[1], Yoshito Oka[1], Tomonao Matsushita[1] ([1]Grad. Sch. Sci., Univ. Kyoto, [2]Grad. Sch. Ag., Univ. Setsunan, [3]Grad. Sch. BioSci., Univ. Chubu, [4]Grad. Sch. Ag., Univ. Kyushu, [5]Grad. Sch. Sci., Univ. Tokyo)

■ Systems biology

1P194 P Integrated metabolomics and transcriptomics analysis of MBW-transcriptional complex in *Marchantia polymorpha*

Akari Harada[1], Haruka Arai[2], Kazuya Yanagiura[2], Kengo Morohashi[1,2] ([1]Grad. Sci. Tech., CIST, [2]Grad. Sci. Tech., TUS)

1P195 P Simulation study of factors affecting the accuracy of transcriptome models under complex environmentsSimulation study of factors affecting the accuracy of transcriptome models under complex environments

Dan Eiju[1,4], Yoichi Hashida[2], Taro Maeda[1], Atsushi Nagano[3,4] ([1]Grad. Media and Governance., Univ keio, [2]Fac. Agri., Univ. Takasaki Health and Welfare, [3]Fac. Agri., Univ. Ryukoku, [4]Inst. Advanced Biosciences., Univ keio)

1P196 Exploration of transcriptional regulatory mechanism of the DREAM complex underlying cell-cycle progression from ChIP-Seq and RNA-Seq datasets

Hidekazu Iwakawa[1], Yuji Nomoto[1], Takamasa Suzuki[2], Masaki Ito[1] ([1]Sch. Biol. Sci. Technol., Kanazawa Univ., [2]Col. Biosci. Biotech., Chubu Univ.)

1P197 Meta-analysis of Domestication-induced Gene Expression Changes Using Public Database of Wild and Cultivated Species

Makoto Yumiya, Hidemasa Bono (Grad. Sch. Int. Sci., Hiroshima Univ.)

1P198 Establishing an Experimental and Analytical Method for Modeling the 3D Movement Dynamics of Maranta Leaves

Shotaro Sakita[1], Jion Shimoyama[1], Itsuki Kunita[2], Masashi Toda[3,4], Takumi Higaki[3,5], Masahiro Takahara[5], Miyuki Nakata[3,5] ([1]Kumamoto Univ, Sci, [2]Ryukyu Univ, FOE, [3]Kumamoto Univ, IRCABE, [4]Kumamoto Univ, REISI, [5]Kumamoto Univ, FAST)

1P199 *Nicotianabenthamiana* genome and transcriptome database construction

Ken-ichi Kurotani[1], Hideki Hirakawa[2], Kenta Shirasawa[3], Koya Tagiri[4], Moe Mori[4], Ramadan Abedelaziz[5], Yasunori Ichihashi[6], Takamasa Suzuki[7], Yasuhiro Tanizawa[8], Kenji Miura[5], Yasukazu Nakamura[8], Sachiko Isobe[9], Michitaka Notaguchi[1,10] ([1]Biosci. Biotech. Center, Nagoya Univ., [2]Grad. Sch. Bioresource and Bioenv Sci., Kyushu Univ., [3]Dept. Front. Res. Dev., Kazusa DNA Res. Inst., [4]Grad. Sch. Bioagri., Nagoya Univ., [5]Grad. Sch. Life Earth Sci., Univ. Tsukuba, [6]BRC, RIKEN, [7]Col. Biosci. Biotech., Chubu Univ., [8]Genome Info., Natl. Inst. Genet., [9]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [10]Grad. Sch. Sci., Kyoto Univ.)

■ New technology

1P200 P Trial to create high-sugar fruits harboring tomato by genome editing for *BPG4*, a chloroplast regulating factor in Brassinosteroid signaling
Shunshu Ri[1], Ryo Tachibana[1], Ayumi Yamagami[1], Magdalena Rossi[2], Koichi Sugimoto[3], Hiroshi Ezura[3], Takeshi Nakano[1] ([1]Grad. Sch. Biostudies., Univ Kyoto, [2]Univ. Sao Paulo, [3]Grad. Sch. Bioindustrial Sci., Univ. Tsukuba)

1P201 P Production of Eustoma (*Eustoma grandiflorum*) Double-flowers without Affecting Fertility by Genome Editing of *EgAP2* Gene
Shiori Sakamoto[1], Yukiko Shimbo[2], Noriko Ohnuma[3], Hirotaka Adachi[3], Yuriko Ikeda[2], Tsubasa Yano[4], Maki Ohtsubo[2], Kimitoshi Sakaguchi[4], Takashi Kasai[4], Teruhiko Terakawa[4], Seiji Takeda[2], Norihiro Ohtsubo[2] ([1]Life Environ. Sci., Kyoto Pref. Univ., [2]Grad. Sch. Life Environ. Sci., Kyoto Pref. Univ, [3]Miyoshi & Co., Ltd., [4]Inplanta Innovations Inc.)

1P202 P Attempts To Suppress *Agrobacterium* Overgrowth Using Antimicrobial Genes Derived From Bacteriophages
Haruka Suwazono[1,2], Mika Ikegaya[2], Shigeo S. Sugano[2] ([1]Dept. Appl. Biol. Sci., Fac. Sci. Tech., Tokyo Univ. Sci., [2]Bioproduction Research Institute, AIST)

1P203 Enhancement of gene editing efficiency using HAT-mediated epigenetic modification in plants
Takayuki Kondo[1,2], Hideki Narukawa[1], Kazuma Sakoda[3], Ryo Miyokawa[1], Takehito Kobayashi[1], Yu Sawai[1], Mayu Iida[1], Yuka Ishioka[1], Kaoru Sanda[1], Yuki Watanabe[1], Satomi Negoro[1], Huiyuan Jia[1], Masaki Niwa[1], Atsushi Sakurai[3], Sousuke Imamura[3] ([1]GRA&GREEN Inc., [2]Grad. Sch. Bioagri. Sci., Nagoya Univ., [3]Space Environment and Energy Laboratories, NTT Corporation)

1P204 Genome editing in *Arabidopsis* using engineered compact AsCas12f with heat treatment
Yui Michigami[1], Hiroaki Saika[2], Seiichi Toki[2,3,4,5], Masaki Endo[2] ([1]Grad. Sch. Agr., Ryukoku Univ., [2]Inst. Agrobiol. Sci., NARO, [3]Grad. Sch. Nanobio., Yokohama City Univ., [4]Kihara Inst. Biol. Res., Yokohama City Univ., [5]Fac. Agr., Ryukoku Univ.)

1P205 Enhanced Frequency of Precision Genome Editing in Plants by Suppression of the DNA Mismatch Repair System
Rina Kojima[1], Yuya Hiura[2], Hiroaki Saika[3], Ayako Yokoi[3], Tomasz Wiktor Oleszkiewicz[2], Seiichi Toki[1,2,3,4,5] ([1]Grad. Sch. Agr., Ryukoku Univ., [2]Fac. of Agr., Ryukoku Univ., [3]Inst. Agrobiol. Sci., NARO, [4]Grad. Sch. Nanobio., Yokohama City Univ., [5]Kihara Inst. Biol. Res., Yokohama City Univ.)

1P206 High-efficient genome editing of tomato by an AalCas9 containing multiple introns
Reika Hasegawa[1], Hiroshi Yamamoto[2], Akiyoshi Nakamura[2], Shigeo S. Sugano[2], Tsubasa Yano[1], Yoichi Makino[3], Seiichiro Ito[3], Nobutaka Mitsuda[2], Teruhiko Terakawa[1] ([1]Inplanta Innovations Inc., [2]AIST · BPRI, [3]TOPPAN Inc.)

1P207 Improving efficiency of the *Agrobacterium*-mediated transformation by an anti-tumor compound
Yutaro Shimizu[1], Kotaro Nishiyama[1], Jekson Robertlee[1], Shigeo S. Sugano[2], Shinya Hagihara[1] ([1]Center for Sustainable Resource Science, RIKEN, [2]Bioproduction Research Institute, AIST)

1P208 Block-face Serial Fluorescence Microscopy for Plant Tissue Imaging at a Cellular Level
Dongbo Shi[1], Atsushi Kasai[2] ([1]RIKEN CSRS, [2]Nagoya Uni. RIEM)

1P209 Analysis of leaf position-dependent phosphorus allocation in a deciduous woody plant *Populus alba* L.
Aoi Hirata[1], Yuko Kurita[1], Kimitsune Ishizaki[2], Natsuko I. Kobayashi[1], Keitaro Tanoi[1,3] ([1]Grad. Sch. of Agr. and Life Sci., UTokyo, [2]Grad. Sch. of Sci., Univ. Kobe, [3]F-REI)

1P210 Analysis of root system architecture under heterogeneous nutrient conditions using hydrogel-based transparent soil system
Naoyuki Sotta[1,2], Wenhao Li[2], Toru Fujiwara[2] ([1]Grad. Sch. Agr., Osaka Metropolitan Univ., [2]Grad. Sch. Agr. Life Sci., Univ. Tokyo)

1P211 Generation and analysis of histone-miniSOG oxerexpressors in *Marchantia polymorpha*
Hinata Takano[1], Go Takahashi[1], Saori Yamaya[1], Tomohiro Kiyosue[1], Yuki Hirakawa[2] ([1]Grad. Sch. Sci., Gakushuin Univ., [2]Grad. Sch. Integr. Sci. Life, Hiroshima Univ.)

1P212 Development of artificial carbon fixation technology with a plant derived enzyme
Shuhei Kusano, Yuma Shisaka, Shinya Hagihara (RIKEN · CSRS)

■ Photosynthesis

2P001 Adaptation of energy transfer in cyanobacterium *Synechococcus leopoliensis* to light qualities
Hidetaka Kurachi[1], Nozomi Sakai[2], Shimpei Aikawa[3], Seiji Akimoto[1,2] ([1]Fac. Sci., Kobe Univ., [2]Grad. Sch. Sci., Kobe Univ., [3]JIRCAS)

2P002 Correlation of Energy Transfer Distance and Exciton Coherence Length in Artificial Photosynthetic Light-Harvesting Antenna
Yuki Kamiie[1,2], Shogo Matsubara[3], Toru Kondo[2,4] ([1]Dept. of Life Sci. and Tech., Institute of Science Tokyo, [2]National Institute for Basic Biology, [3]Grad. Sch. Eng, Nagoya Tech., [4]Exploratory Research Center on Life and Living Systems)

2P003 Green underwater world: the coevolution of light-harvesting system of cyanobacteria and underwater light environment

Kumiko Ito[1,2], Taro Matsuo[1,2], Yosuke Hoshino[2,3], Yuri I. Fujii[2,4], Satomi Kanno[2], Kazuhiro J. Fujimoto[1,5], Rio Tsuji[1], Shinnosuke Takeda[4], Chieko Onami[4], Chihiro Arai[1], Yoko Yoshiyama[6], Yuki Kato[1], Takeshi Yanai[1,5], Yuichi Fujita[7], Shinji Masuda[8,9], Hideaki Miyashita[4] ([1]Grad. Sch. Sci., Nagoya Univ., [2]IAR, Nagoya Univ., [3]NUSR, Nagoya Univ., [4]Univ. Kyoto, Grad. Sch. Human Environmenta, [5]ITbM, Nagouya Univ., [6]Fac. of Agr., Ryukoku Univ., [7]Bioagr., Nagoya Univ., [8]Dept. Life Sci. & Tech., Science Tokyo, [9]ELSI, Science Tokyo)

2P004 Chlorophyll *a* accumulation in a purple bacterium requires genes for the type-I reaction center and galactolipid synthesis

Yusuke Tsukatani[1], Hitoshi Tamiaki[2], Shinji Masuda[3] ([1]Biogeochemistry Research Center, JAMSTEC, [2]Graduate School of Life Sciences, Ritsumeikan University, [3]Department of Life Science and Technology, Institute of Science Tokyo)

2P005 Structural analysis of PSII-ACPII from a cryptophyte alga *Rhodomonas sp.* (NIES-2332)

Nozomi Yonehara[1], Wenyue Zhang[1], Koji Kato[2], Pi-Cheng Tsai[2], Fusamichi Akita[2], Jian-Ren Shen[2] ([1]Grad. Sch. Env. Lif. Nat. Sci. Tec., Univ. Okayama, [2]Res. Ins. Int. Sci., Univ. Okayama)

2P006 Analyses of the homolog composition of Lhcb1 and functions of photosystems in transgenic rice harboring barley HvLhcb1.12

Ayane Konno, Shunpei Ueyama, Yusuke Shikanai, Akihiro Saito, Kyoko Higuchi (Grad. Sch. Appl. Biosci., Tokyo Univ. Agri.)

2P007 Fluorescence spectral analysis of photosystem II (PSII) under repair from photoinhibition by exhaustive single molecule spectroscopy

Kyosuke Watanabe, Shen Ye, Yutaka Shibata (Graduate School of Science, Tohoku Univ.)

2P008 Phenotypic analyses of the loss-of-function mutants of *f*- and *m*-type thioredoxin in *Marchantia polymorpha*

Taichi Sugiyama[1], Yuuki Sakai[2], Masaru Kono[1,3], Kimitsune Ishizaki[2], Keisuke Yoshida[1] ([1]CLS, Sci. Tokyo, [2]Grad. Sch. Sci. Kobe Univ., [3]ABC, NINS)

2P009 Investigation of redox regulation of photosynthetic electron transfer via PIFI proteins

Kenta Miura[1], Minami Murai[2], Ko Imaizumi[2], Keisuke Yoshida[3,4], Toru Hisabori[3,5], Kaori Kohzuma[1,2], Kentaro Ifuku[1,2] ([1]Fac. Agric., Kyoto Univ., [2]Grad. Sch. Agric., Kyoto Univ., [3]CLS, Tokyo Tech., [4]CLS, Science Tokyo, [5]SOKENDAI)

2P010 The ammonium recycling pathway in photorespiration allows for subcellular translocation of glutamine synthetase in Arabidopsis

Shinya Wada[1], Hayato Sato[2], Keiki Ishiyama[1], Takanori Maruta[3], Hiroyuki Ishida[1], Chikahiro Miyake[2] ([1]Grad. Sch. Agri., Tohoku Univ., [2]Grad. Sch. Agri., Kobe Univ., [3]Grad. Sch. Nat. Sci. Tech., Shimane Univ.)

2P011 Environmental responses in leaf photosynthetic and hydraulic characteristics of C3 and C4 Flaveria

Yusuke Mizokami, Riku Ukai, Rino Tsuchigauchi, Yuki Shiraishi, Ko Noguchi (Univ. Tokyo Pharm. Life Sci.)

2P012 Sink-source transition mechanism in soybean leaves elucidated by using $^{14}CO_2$ for fixation and RNA-seq analysis

Ai Soma[1], Ryohei Sugita[2], Yuko Kurita[1], Natsuko I. Kobayashi[1], Keitaro Tanoi[1,3], Tomoko M. Nakanishi[1] ([1]Graduate School of Agricultural and Life Sciences, The University of Tokyo, [2]Radioisotope Research Center, Nagoya University, [3]Fukushima Institute for Research, Education and Innovation)

2P013 Co-expression and chloroplast localization of multiple proteins in plant cells using ribosome skipping

Yui Shimizu[1], Haruki Yamamoto[1], Toshiaki Kozuka[2], Takafumi Yamashino[1], Masaki Ito[2], Yuichi Fujita[1] ([1]Grad. Sch. Bioagri. Sci., Nagoya Univ., [2]Sch. Biol. Sci. & Tech., Kanazawa Univ.)

2P014 Analysis on a partner switching system involved in switching between photoautotroph and dark heterotroph in the cyanobacterium *Leptolyngbya boryana*

Takafumi Ueno, Mari Banba, Haruki Yamamoto, Yuichi Fujita (Grad. Sch. Bioagri. Sci., Nagoya Univ.)

2P015 Analysis of transporter and associated factors involved in the efflux and metabolism of sulfur globules in purple photosynthetic bacteria

Miyu Ikushima[1], Nanako Kanno[2], Shigeru Kawai[3], Takeru Masuda[4], Christiane Dahl[5], Takayuki Shimizu[1] ([1]Faculty of Science, Nara Women's University, [2]Department of Chemistry, School of Science, Kwansei Gakuin University, [3]Department of Applied Chemistry and Life Science, [4]Graduate School of Arts and Sciences, The University of Tokyo, [5]Institut für Mikrobiologie & Biotechnologie, Rheinische Friedrich-Wilhelms-Universität Bonn)

2P016 Evaluations for three types of C8-vinyl reductase found in bacteriochlorophyll biosynthetic pathways of anoxygenic photosynthetic bacteria

Jiro Harada[1], Ken Yamamoto[1], Hitoshi Tamiaki[2] ([1]Dept. Med. Biochem., Kurume Univ. Sch. Med., [2]Grad. Sch. Life Sci., Ritsumeikan Univ.)

2P017 P Role of structural heterogeneity for light-harvesting process in chlorosome revealed by single-particle transient absorption spectroscopy

Shun Arai[1,2,3], Tomomi Inagaki[4], Jiro Harada[5], Chihiro Azai[6], Toru Kondo[1,2] ([1]Div. Photophys. Biol., NIBB, [2]Interconnective Photobiology Group, ExCELLS, [3]Dept. of Life Sci. & Tech., Science Tokyo, [4]Grad. Sch. Life Sci., Ritsumeikan Univ., [5]Dept. of Med. Biochem., Kurume Univ. Sch. of Med., [6]Fac. of Sci. & Eng., Chuo Univ.)

2P018 P Intercellular transport of protochlorophyllide via extracellular vesicles of the cyanobacterium *Leptolyngbya boryana*
Kentaro Usui, Haruki Yamamoto, Yuichi Fujita (Grad. Sch. Bioagri. Sci., Nagoya Univ.)

2P019 P Cryo-EM structure of photosystem II D1-V185T mutant from *Thermosynechococcus vestitus*
Haowei Jiang[1], Yoshiki Nakajima[1], Fusamichi Akita[1], Hongjie Li[1], Koji Kato[1], Miwa Sugiura[2], Jian-Ren Shen[1] ([1]Research Institute for Interdisciplinary Science, Okayama University, [2]Proteo-Science Research Center, Ehime University)

2P020 P Comparison of electrochromism on photosystem II bound to different chlorophylls
Yuki Ito[1], Kosuke Tada[1], Masaya Kimura[1], Naohiro Shimamoto[1], Yuki Takegawa[1], Natsuko Inoue-Kashino[2], Kyoko Shinzawa-Itoh[2], Koji Yonekura[3,4], Keisuke Kawakami[3], Yasuhiro Kashino[2], Miwa Sugiura[1,5] ([1]Graduate School of Science and Engineering, Ehime University, [2]Graduate School of Science, University of Hyogo, [3]Biostructural Mechanism Laboratory, RIKEN SPring-8 Center, [4]Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, [5]Proteo-Science Research Center, Ehime University)

2P021 P Two amino acid residues in the Rieske ISP subunit of the cytochrome b_6f complex controlling the pH sensitivity of photosynthetic control
Ryouhei Kobayashi, Toshiharu Shikanai (Grad. Sch. Sci., Kyoto Univ.)

2P022 P *YELLOW* gene encodes a GOLDEN2-LIKE transcription factor in Japanese morning glory *Ipomoea nil*
Hibika Umehara[1,2], Kyoko Takagi[1,3,4], Shigeru Iida[1,2], Atsushi Hoshino[1,2] ([1]Natl. Inst. Basic Biol., [2]SOKENDAI, [3]Grad. Sch. Agric., Hokkaido Univ., [4]Inst.Crop Sci., NARO)

2P023 P Chloroplastic HSP70 affects dynamic behavior of VIPP1 by interacting with VIPP1 C-terminal tail
Di Li[1], Shin-Ichiro Ozawa[1], Michael Hippler[1,2], Wataru Sakamoto[1] ([1]Institute of Plant Science and Resources, Okayama University, [2]University of Münster)

■ Primary metabolism

2P024 P Redox Regulation of Cytosolic Fructose-1,6-bisphosphate Aldolase from *Arabidopsis thaliana*
Kosuke Fujii[1], Toru Hisabori[2], Keisuke Yoshida[1] ([1]Lab Chem Life Sci, Science Tokyo, [2]SOKENDAI)

2P025 P Functional Analysis of Sphingolipid Fatty Acid 2-Hydroxylases in *Marchantia polymorpha*
Misa Inoue[1], Chika Tsuboyama[1], Yutaka Kodama[2], Toshiki Ishikawa[3], Yoichiro Fukao[1], Minoru Nagano[1] ([1]Ritsumeikan Univ., [2]Utsunomiya Univ., [3]Saitama Univ.)

2P026 P Improved production of sustainable aviation fuel (SAF) in the cyanobacterium using highly active alkane biosynthesis enzymes
Risako Ishida[1], Hiroki Kaneko[1], Yoichi Nakahira[2] ([1]Grad. School Agri., Ibaraki Univ., [2]Coll. Agri., Ibaraki Univ.)

2P027 Characterisation of excess sugar (manpuku) response in the leaves of *suc2* mutant
Satoru Naganawa Kinoshita[1], Till Ischebeck[1], Toshinori Kinoshita[2,3], Iris Finkemeier[1] ([1]IBBP, Univ. Münster, DE, [2]Grad. Sch. Science, Nagoya Univ., [3]ITbM, Nagoya Univ.)

2P028 Physiological Roles and Transcriptional Regulation of the *OsHHO3* Transcriptional Repressor Gene Under Fluctuating Nitrogen Conditions in Rice
Yuqiu Jiang, Mailun Yang, Yuying Wu, Yasuhito Sakuraba, Shuichi Yanagisawa (AgTECH., Grad. Sch. Agri. Life Sci., Univ. of Tokyo)

2P029 Nitrate inhibits growth and photosynthesis of *Drosera rotundifolia*
Shinichiro Ito[1], Juse Okamoto[1], Nobuyuki Takatani[2], Tatsuo Omata[2], Makiko Aichi[2] ([1]Grad. Sch. Biosci. Biotech., Chubu Univ., [2]Col. Biosci. Biotech., Univ. Chubu)

2P030 Starch dynamics in degenerating root of *Cuscuta* seedling
Mariko Asaoka[1], Hiromitsu Tabeta[2], Momoko Tobinai[1], Toranosuke Nakajima[1], Toshiya Yokoyama[1], Masami Hirai[2], Kazuhiko Nishitani[1] ([1]Kanagawa Uni. Faculty of Science, [2]RIKEN CSRS)

2P031 Analysis of oil accumulation in *Nannochloropsis oceanica* NIES-2145 in response to light and dark
Ryosuke Akimoto[1], Nozomu Sakurai[2], Yoshinori Hasegawa[2], Koichi Hori[1], Hiroyuki Ohta[1,2,3], Mie Shimojima[1] ([1]Sch. Life Sci. Tech., Inst. Sci. Tokyo, [2]Kazusa DNA Res. Inst., [3]Phytolipid Technologies Co., Ltd.)

2P032 Pleiotropic Effects of a Phosphatidylglycerol-Less Mutation in the Cyanobacterium *Synechocystis* sp. PCC 6803
Rinsei Negishi, Megumi Haga, Tatsunori Hiyoshi, Norihiro Sato (Tokyo University of Pharmacy and Life Sciences)

2P033 Changes In Phytic Acid Content And Phytase Activity During Rice Seed Development
Yusei Yamauchi, Rioko Shibusawa, Tatsuki Akabane, Naoki Hirotsu (Grad. Sch. Life Sci., Univ. Toyo)

■ Specialized (secondary) metabolism

2P034 Identification and functional characterization of terpene synthases in medicinal plant *Scoparia dulcis*

Yuka Uchida[1], Kazuya Ishita[1], Ryo Yamamoto[1], Yoshimi Yamamura[2], Jung-Bum Lee[2] ([1]Sch. Pharm., Univ. Toyama, [2]Fac. Pharm., Univ. Toyama)

2P035 Study on Asarone Biosynthesis in *Acorus calamus* L.

Nagomi Kashimoto[1], Oyundari Ganbat[1], Takumi Ogawa[1], Takao Koeduka[2], Bolortuya Ulziibat[3], Atsushi Okazawa[1] ([1]Grad. Sch. Agric., Osaka Met. Univ., [2]Grad. Sch. Sci. Tech., Yamaguchi Univ., [3]Dept. R&D Policy, Mongol. Acad. Sci.)

2P036 Study on physiological function of aspartate aminotransferase (AAT) in tomato fruit

Yinggemei Huang[1], Chiaki Matsukura[2] ([1]University of Tsukuba. Degree Programs in Life and Earth Sciences, [2]Institute of Life and Environmental Sciences, T-PIRC, University of Tsukuba, Japan)

2P037 P Effect of starch-deficiency on pectin and cutin metabolism in tomato fruit

Mingeng Li[1], Haruka Suzuki[2], Xiaoran Yu[2], Hiroaki Iwai[2], Chiaki Matsukura[3] ([1]Degree Programs in Life and Earth Sciences, University of Tsukuba, [2]Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan, [3]Institute of Life and Environmental Sciences, T-PIRC, University of Tsukuba)

2P038 P Selective Switching of *CqCYP76AD1* Activities in Producing Betalains by Critical Amino Acids

Wan-Chu Fu, Shunnitsu You (Institute of Biochemistry, National Chung Hsing University)

2P039 P Detection of the accumulating and released molecules of the characteristic response of cats in silver vine by ambient ionization mass spectrometry

Shintaro Aritaki[1], Toshio Nishikawa[1], Masao Miyazaki[2], Reiko Uenoyama[2], Kanako Sekimoto[3], Naoya Ogawa[4], Kentaro Takahama[4], Katsuhiro Shiratake[1] ([1]Grad. Sch. Bioagri Sci., Nagoya Univ., [2]United Grad. Sch. Agric. Sci., Iwate Univ., [3]Grad. Sch. Nanobiosci., Yokohama City Univ., [4]Tech. Cent., Nagoya Univ.)

■ Biomembrane/Ion and solute transport

2P040 P Functional Analysis of Rice OsHKT1;1-V2 Variant

Shahin Imran[1], Shuntaro Ono[1], Tomoaki Horie[2], Maki Katsuhara[1] ([1]Institute of Plant Science and Resources, Okayama University, 2-20-1, Chuo, Kurashiki 710-0046, Japan, [2]Division of Applied Biology, Faculty of the Textile Science and Technology, Shinshu University, 3-15-1, Tokida, Ueda 386-8567, Japan)

2P041 P Identification and Characterization of Ion Channel Aquaporins of Tomato SlPIP2s

Newton Chandra Paul, Shahin Imran, Izumi C. Mori, Maki Katsuhara (Institute of Plant Science and Resources, Okayama University, 2-20-1, Chuo, Kurashiki 710-0046)

2P042 P Identification of Novel Factors Involved in Potassium Deficiency Responses Using Natural Variation in Potassium Deficiency Responses among Arabidopsis Accessions

Nana Sugimura[1], Kosuke Usuda[1], Namie Ohtsuki[1], Keina Monda[2], Koh Iba[2], Yasuhito Sakuraba[1], Shuichi Yanagisawa[1] ([1]AgTECH., Grad. Sch. Agri. Life Sci., Univ. of Tokyo, [2]Dept. Biol., Fac. Sci., Kyushu Univ.)

2P043 Generation and phenotypic characterization of Arabidopsis mutants lacking four paralogs of the heme-specific ABC transporter functioned in plastid

Mayo Ota[1], Yuuma Yoshioka[2], Kohji Nishimura[3], Shinji Masuda[4], Takaaki Miyaji[2,5], Tatsuru Masuda[6], Takayuki Shimizu[1] ([1]Faculty of Science, Nara Women's University, [2]Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University, [3]Faculty of Life and Environmental Sciences, Shimane University, [4]Department of Life Science and Technology, Institute of Science Tokyo, [5]Advanced Science Research Center, [6]Graduate School of Arts and Sciences, The University of Tokyo)

2P044 Analysis of the evolutionary process of membrane transport proteins

Tatsuya Hiei, Yoichi Nakanishi, Sumie Ishiguro, Shin-ichi Maeda (Grad. Sch. Bioagr., Univ. Nagoya)

2P045 Structure-function relation of barley tonoplast intrinsic proteins, HvTIPs, regulating water transport in seeds

Shigeko Utsugi, Maki Katsuhara (IPSR, Okayama Univ.)

2P046 Functional Characterization of a Splicing Variant from the *MpHKT1* Gene Encoding a Na^+-permeable Channel in the Liverwort *Marchantia polymorpha*

Takumi Koen[1], Chihiro Takegami[2], Kimitsune Ishizaki[3], Shahin Imran[4], Maki Katsuhara[4], Takayuki Kohchi[5], Natsuko I. Kobayashi[6], Keitaro Tanoi[6], Tomoaki Horie[1] ([1]Grad. Sch., Div. Appl. Biol., Shinshu Univ, [2]Fac. Tex. Sci. Tech., Shinshu Univ, [3]Grad. Sch., Sci., Kobe Univ, [4]IPSR, Okayama Univ, [5]Grad. Sch., Biostudies., Kyoto Univ, [6]Grad. Sch., Agric. Life Sci., Univ. Tokyo.)

2P047 Search for signals that are travelling via sieve tubes in oilseed rape plants using transcriptome analysis and other techniques
Shin-ichi Nakamura, Mayu Tashiro, Akihisa Shinozawa, Kanna Sato-Izawa (Dept. Bioscience, Tokyo Univ. Agric.)

■ Organelles/Cytoskeleton

2P048 Which fluorescent protein is most appropriate for live imaging of chloroplast nucleoids in *Chlamydomonas reinhardtii*?
Kyoko Takagi, Yui Mizuki, Minori Ebihara, Ayano Ikeda, Yusuke Kobayashi (Ibaraki Univ. Sci.)

2P049 Transitions of DPD1 nuclease during evolution of plants
Tsuneaki Takami, Wataru Sakamoto (Inst. Plant Sci. Res., Okayama Univ.)

2P050 Transcriptome analysis of *cref3* mutant defective in *PSBE* RNA editing in *Arabidopsis thaliana*
Mitsuhiro Matsuo[1], Hikaru Fukuoka[1], Makoto Yoshitaka[1], Soichirou Satoh[2], Junichi Obokata[1] ([1]Fac. Agric, Setsunan Univ., [2]Grad. Sch. Life& Envi Sci., Kyoto Prefect. Univ.)

2P051 A pentatricopeptide protein co-expressed gene, *PCIS1*, is involved in splicing of three mitochondrial nad transcripts in seed plants
Brody Frink[1], Matthias Burger[4], Maya Yarkoni[2], Sofi Shevtsov-Tal[2], Hagit Zer[2], Shohei Yamaoka[3], Oren Ostersetzer-Biran[2], Mizuki Takenaka[1] ([1]Grad. Sch. Sci., Kyoto Univ., [2]The Alexander Silberman Institute of Life Sciences, The Hebrew University of Jerusalem, [3]Grad. Sch. Biostudies, Kyoto University, [4]Molekulare Botanik, Universität Ulm)

2P052 Investigation of multiple transcription initiation sites of *atp9* gene in *Arabidopsisthaliana*
Jingxiu Ji[1], Chang Zhou[2], Sachi Takenaka[1], Shin-ichi Arimura[2], Mizuki Takenaka[1] ([1]Graduate School of Science, Kyoto University, [2]Grad. School of Agriculture. & Life Sci, The Univ of Tokyo)

2P053 The adjustment mechanism for hypergravity-induced alteration of the microtubule structures position and axis
Mizuki Yamada[1], Ichirou Karahara[2], Daisuke Tamaoki[2] ([1]Grad. Sci. Eng., Univ. Toyama, [2]Fac. Sci., Acad. Assemb., Univ. Toyama)

2P054 Blue and Red light-dependent regulation of dynamics and orientation of cortical microtubules
Yui Ueda[1], Juri Kikuchi[1], Shotaro Hayashi[1], Kota Higashi[2], Takahiro Hamada[3], Shizue Yoshihara[1,2] ([1]Col. Life Env. Adv. Sci., Osaka Pref. Univ., [2]Dept. Sci., Osaka Metro. Univ., [3]Dept. Life Sci., Okayama Univ. Sci.)

2P055 Chloroplast localized mechanosensitive channel *MSL2* is involved in the osmoregulation of guard cell chloroplasts
Miho Yamahana, Atsushi Tougaki, Chikako Tanaka, Kanako Yamasaki, Yoko Ishizaki, Takashi Shiina (Setunan Univ.Faculty of Agriculutule)

2P056 P Anionic lipids PG and SQDG facilitate chloroplast formation from etioplasts
Akiko Yoshihara[1], Risa Uwatoko[2], Keiko Kobayashi[2], Noriko Nagata[2], Koichi Kobayashi[1] ([1]Grad. Sch. Sci., Osaka Metro. Univ., [2]Fac. Sci., Japan Women's Univ.)

2P057 Analysis of The Physiological Role of Heat-Induced Increase in Stromal Ca^{2+} Concentration in *Arabidopsis*
Yudai Takenaka, Honoka Takeuchi, Atsushi Togaki, Yoko Ishizaki, Takashi Shiina (Faculty of Agriculture, Setsunan University)

2P058 P A Novel Mechanism for the Consolidation of Chloroplast Gene Expression for the Construction of Pyrenoids, accelerator of Photosynthesis in Algae
Haruki Kanazawa[1,2], Mari Takusagawa[1], Daisuke Shimamura[3,4], Yoshimi Kinoshita[5], Tomoko Nishiyama[5], Ryutaro Tokutsu[6], Masayuki Onishi[7], Toshiharu Shikanai[1], Takashi Yamano[3,8], Yoshiki Nishimura[1,2] ([1]Lab of Plant Molecular Genetics, Grad. Sch. Sci., Kyoto Univ., [2]Grad. Sch. Sci. Eng., Waseda Univ., [3]Grad. Sch. Bio., Kyoto Univ., [4]RIKEN Center for Sustainable Resource Science (CSRS), [5]Department of Biophysics, Grad. Sch. Sci., Kyoto Univ., [6]Lab of Plant Molecular Physiology, Grad. Sch. Sci., Kyoto Univ., [7]Department of Biology, Duke Univ., [8]CeLiSIS, Kyoto Univ.)

2P059 P Mitochondrial morphology of mitochondrial fission mutants, *drp3* and *fis1* in Arabidopsis thaliana
Masaru Hashimoto[1], Yugo Ito[2], Issei Nakazato[2], Shin-ichi Arimura[2] ([1]Faculty of Agriculture, The University of Tokyo, [2]Graduate School of Agricultural and Life Sciences, The University of Tokyo)

2P060 P Analysis of the Role of Actin Filament in the Regulation of Chromatin Structure via the Nuclear Envelope
Tomoko Matsumoto, Noriko Inada (Osaka Metropolitan Univ., Grad. Schl. of Agri.)

2P061 P Elucidating the role of MPB2C in cortical microtubule nucleation
Yuto Yamazumi[1,2], Noriyoshi Yagi[2], Masayoshi Nakamura[2] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]ITbM, Univ. Nagoya)

2P062 P Identification and functional analysis of novel lipid-droplet-localized lipases in *Arabidopsis thaliana* Leaves
Yuri Kurosawa[1], Haruhiko Jimbo[2], Yoshitaka Nishiyama[2], Takashi L. Shimada[1] ([1]Fac. Hort., Chiba Univ., [2]Saitama Univ.)

■ Cell wall

2P063 P Biochemical characterization of TPFLA1 required for pollen wall formation in Arabidopsis

Seiya Nishihara, Kaho Kumazawa, Akari Isogai, Hitoshi Mori, Sumie Ishiguro (Bio-Agric. Sci., Nagoya Univ.)

2P064 P Analysis of mutants accumulating less lignin on xylem secondary cell wall

Maho Kuroda[1], Risa Wakasugi[2], Shunji Shimadzu[3], Yuki Kondo[3] ([1]Sch. Sci., Osaka Univ., [2]Grad. Sch. Sci., Kobe Univ., [3]Grad. Sch. Sci., Osaka Univ.)

2P065 Functional analysis of reactive oxygen species during the tissue-reunion process of incised *Arabidopsis* stem

Yusuke Ohba[1,2], Li Jiuyi[2], Keita Matsuoka[1], Yuki Kondo[3], Kazuyuki Kuchitsu[4], Shinobu Satoh[5], Hiroaki Iwai[5], Masashi Asahina[1,6] ([1]Dept. Biosci, Teikyo Univ., [2]Gard. Sch. Sci. and Tech., Univ. Tsukuba, [3]Grad. Sch. Sci. Dept. Bio. Sci., Osaka Univ., [4]Dept. appl. Bio. Sci., Tokyo Univ. Sci., [5]Fac. Life and Env. Sci., Univ. Tsukuba, [6]Adv. Inst. anal. Ctr., Teikyo Univ.)

2P066 Analysis of Seed Coat Mucilage Formation in Arabidopsis *amuc2* Mutant

Naoya Kitamon[1], Taku Demura[1,2], Tadashi Kunieda[1,2] ([1]Div. of Biol. Sci., NAIST, [2]CDG, NAIST)

2P067 Deciphering the biological function of fatty acid omega-hydoroxylase in bryophytes

Kanade Tatsumi[1,2], Hugues Renault[2] ([1]RISH, Kyoto Univ., [2]CNRS, IBMP)

■ Development/Morphogenesis

2P068 Understanding the meristematic organization and identity of a*daxial-abaxial bipolar leaf* (multiple-forming) mutants and identification and expression analysis of the causal genes

Kaito Chiba[1], Miki Kikuchi[1], Kaho Yashima[1], Tadashi Yamazaki[1], Risa Okamoto[1], Mayo Watanabe[1], Hidehiko Sunohara[2], Nobuhiro Nagasawa[1], Namiko Satoh-Nagasawa[1] ([1]Fac. Biores. Sci., Akita Pref., [2]Fac. Sci., Univ. Kumamoto)

2P069 Characteristics of cell division induced by the RGF8 peptide

Mitsuki Noda[1], Sanae Kaneta[2], Tatsuo Kakimoto[2] ([1]Sch. Sci., Osaka Univ., [2]Grad. Sch. Sci., Osaka Univ.)

2P070 Regulation of lateral root formation by *MYBs* downstream of PFA/PFB

Keigo Yokouchi, Rin Yamamoto, Tatsuo Kakimoto (Grad. Sch. Sci., Osaka Univ.)

2P071 Functional analysis of a cytokinin initially inducible bHLH-type transcription factor expressed in the root stele in Arabidopsis thaliana

Shoya Takahashi, Yoshiyuki Sakurai, Kazuma Uesaka, Takafumi Yamashino (Grad. Sch. Bioagri. Sci., Nagoya Univ.)

2P072 Arabidopsis transcription factor NTL9 suppresses vascular cambium differentiation during secondary vascular development in inflorescence stems

Hiroki Sugimoto, Tomoko Tanaka, Nobuhiko Muramoto, Ritsuko Kitagawa-Yogo, Norihiro Mitsukawa (TOYOTA CENTRAL R&D LABS., INC.)

2P073 AS2 and nucleolar protein RH10, involved in leaf development in *Arabidopsis thaliana,* affect the localization of 45S rDNA repeats to perinucleolar region

Rina Kawamoto[1], Sayuri Ando[1], Yasuhiro Kamei[2], Misako Saita[2], Yasunori Machida[3], Chiyoko Machida[1], Shoko Kojima[1] ([1]Grad.Sch.Biosci. and Biotech., Chubu Univ., [2]NIBB, [3]Grad.Sch.Sci., Nagoya Univ.)

2P074 Genetic analysis of transcription factors involved in mesophyll air space formation in Arabidopsis

Kazuma Nunogami[1], Miku Tashiro[2], Chihiro Kanzaki[2], Yuki Yoshida[3], Shinichiro Sawa[1,2,3] ([1]Dept. Sci., Kumamoto Univ., [2]GSST, Kumamoto Univ., [3]IRCAEB, Kumamoto Univ.)

2P075 Establishment of the Artificial Gall-inducing System Without Insect Parasitism in Veronica peregrina

Sawako Ueda, Seiji Takeda, Masa H. Sato, Tomoko Hirano (Grad. Sch. Life and Environment. Sci., Kyoto Pref. Univ.)

2P076 Cytological observations of early ectopic cell division during adventitious bud formation and somatic embryogenesis induced by modified transcription factors

Miho Ikeda[1,3], Takuya Ikoma[1], Ryo Nishijima[1], Nobutaka Mitsuda[2], Jun Nakayama[3], Tsubasa Yamagata[3] ([1]Biosci. Biotech., Fukui Prefectural Univ., [2]BPRI., AIST, [3]Grad. Sch. of Sci., Saitama Univ.)

2P077 Imaging analysis of zygote dynamics in the fern *Ceratopteris richardii*

Hidemasa Suzuki[1], Sjoerd Woudenberg[2], Naoki Minamino[3], Yoshikatsu Sato[4], Takumi Higaki[3], Dolf Weijers[2], Minako Ueda[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]Lab. Biochem., Wageningen Univ., [3]Grad. Sch. Sci. Tech., Kumamoto Univ., [4]Grad. Sch. Sci., Nagoya Univ.)

2P078 Causal gene identification of the air chamber-less mutant *zunberabo* in the liverwort *Marchantia polymorpha*
Ayana Sano[1], Airi Hayashi[2], Yuuki Sakai[3], Kimitsune Ishizaki[3], Yoh Sakuma[1], Hirotaka Kato[1] ([1]Grad. Sch. Sci. Eng., Ehime Univ., [2]Fac. Sci. Kobe Univ., [3]Grad. Sch. Sci., Kobe Univ.)

2P079 The Role of *PaHECs* Played In Gynostemium/Ovary Development of *Phalaenopsis aphrodite*
Yu-Chun Lin (Institute of Tropical Plant Sciences and Microbiology in National Cheng Kung University)

2P080 *Agrobacterium tumefacience*-Mediated *In Planta* Transformation of *Phtheirospermum japonicum*
Fumi Kawaguchi, Masayuki Isshiki (KIBR. Yokohama City Univ.)

2P081 Structural mechanics analysis of abscission layer inhibition and panicle shape related to the initial loss of seed shattering in rice domestication
Ryo Ishikawa, Naohiro Matsubara, Kazuya Inoue, Takashige Ishii (Grad. Sch. Agr. Sci., Kobe Univ.)

2P082 Analysis of the common functions of the sex-determining gene *BPCU* and its gametolog *BPCV* in the liverwort *Marchantia polymorpha*
Ryuichi Tamura[1], Aoi Takano[1], Yoshihiro Yoshitake[1,2], Yukiko Yasui[1], Takayuki Kohchi[1] ([1]Grad.Sch. Biostudies, Kyoto Univ, [2]CeLiSIS, Kyoto Univ)

2P083 P Development of an Efficient Transformation System for Ice Plant Utilizing Fast-TrACC Technology
Renge Kanda[1], Keita Ogusi[1], Yukako Arima[1], Yuri Kondo[1], Sakae Agarie[2] ([1]Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University, [2]Faculty of Agriculture, Kyushu University)

2P084 P Investigation of the mechanism of wound-induced adventitious shoot formation in *Drosera rotundifolia*
Yosuke Sasai[1,2], Shoji Segami[4,5], Noriko Takeda[2], Hatsune Morinaka[2], Akira Iwase[2,3], Kiminori Toyooka[2], Mitsuyasu Hasebe[4,5], Keiko Sugimoto[1,2] ([1]Univ. Tokyo, Dep. Biol. Sci., [2]CSRS, RIKEN, [3]JST PRESTO, [4]NIBB, [5]SOKENDAI)

2P085 P Development of an Experimental System for Nuclear Isolation for Single-Nucleus RNA-Seq and Single-Cell Resolution 3D Imaging of Barley Shoot Apex
Ryota Takeda[1], Jun Ito[1], Yuko Nomura[1], Nao Sato[1], Atsuko Hirota[2], Makoto Hayashi[2], Hiroshi Hisano[3], Tomoki Uchino[4], Shuhei Nasuda[4], Kaoru Tonosaki[1], Tetsu Kinoshita[1], Makoto Kashima[5], Hiroyuki Tsuji[1,6] ([1]KIBR, Yokohama City Univ., [2]CSRS, RIKEN., [3]IPSR, Okayama Univ., [4]Grad. Sch. Agric., Kyoto Univ., [5]Fac. Sci., Toho Univ., [6]Bioscience and Biotechnology Center, Nagoya Univ.)

2P086 P Investigating the Role of Cis-Zeatin in Root Development During Nitrogen Starvation
Graziella Valencia Cong, Fanny Bellegarde, Miki Shibutani, Hitoshi Sakakibara (Nagoya University, School of Agricultural Sciences)

2P087 P The Role of Auxin in Vine Twining—Visualization of Auxin Response in *DR5::GUS* Transgenic Morning Glory
Yu Takarada, Tsuyoshi Kaneta (Grad. Sch. Sci. & Eng., Ehime Univ.)

2P088 P The Developmental Roles of Auxin in the Shoot Regeneration and the Meristem Maintenance
Kaisei Maruyama, Momoko Ikeuchi (NAIST)

2P089 P Comparative Analysis of a Chromatin Regulator Governing Vegetative Growth Determination from Embryogenesis Across Species
Koki Nakamura[1], Hiroshi Hisano[1,2], Yoko Ikeda[1,2] ([1]Grad. sch. Env. Life. Sci., Okayama Univ., [2]IPSR, Okayama Univ.)

2P090 P Morphological Traits and Genetic Analysis to Reveal the Loss of Phenotypic Plasticity in the Aquatic Plant *Callitriche hermaphroditica*
Hiroki Mizoguchi, Tomo Sato, Hiroyuki Koga, Hirokazu Tsukaya (Grad. Sci., Univ. Tokyo)

2P091 P Plastid DJC75/CRRJ/NdhT/DNAJC75 plays a role in nitrate-promoted seed germination in Arabidopsis
Wen-Ya Hou, Huai-Syuan Ciou, Chi-Chou Chiu (Inst. Tropical Plant Sciences and Microbiology, NCKU, Taiwan)

2P092 P Molecular genetic analysis of *SACL2* belonging to the *SAC51* family, a target of thermospermin in *Arabidopsisthaliana*
Yao Xu, Mitsuru Saraumi, Koki Mutsuda, Yuichi Nishii, Taku Takahashi (Grad. Sch. Env. Lif. Nat. Sci.& Tech. Okayama Univ.)

■ Reproduction

2P093 P Insights into dioecious evolution in *Silene latifolia* through functional analysis of two *CLV3* orthologs
Taiki Kobayashi[1], Hidefumi Shinohara[1], Ryo Nishijima[1], Miho Ikeda[1], Dmitry Filatov[2], Yusuke Kazama[1,3] ([1]Graduate School of Bioscience and Biotechnology, Fukui Prefectural University, 4-1-1 Kenjojima, Matsuoka, Eiheiji-cho, Japan, [2]Department of Plant Sciences, University of Oxford, Oxford OX1 3RB, UK, [3]RIKEN Nishina Center, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan)

2P094 P Application of a motion-tracking microscope to pollen tube growth
Fumika Okamoto[1], Nagisa Sugimoto[2], Tsuyoshi Aoyama[2], Yoshikatsu Sato[1,2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]ITbM, Nagoya Univ.)

2P095 P Exploration of interacting factors with *SRK*, female *S* determinant, in self-incompatibility of Brassicaceae plants using BioID
Yurika Harada[1], Maki Hayashi[1], Akira Nozawa[2], Tatsuya Sawasaki[2], Masao Watanabe[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]PROS, Ehime Univ.)

2P096 P Analysis of the *cis*-regulatory region of *LBD35,* which is expressed in an embryonic development-dependent manner
Yi-Ting Chen[1], Yilin Zhang[2], Hironori Takasaki[2], Masaru Ohme-Takagi[1] ([1]Graduate Program of Translational Agricultural Sciences, National Cheng Kung University, Taiwan, [2]Graduate School of Science and Engineering, Saitama University, Japan)

2P097 P Role of male germ cell-specific histone H1 variants involved in spermiogenesis in *Marchantia*
Kanta Kotani[1], Ruri Nishida[1], Asuka Higo[1], Shohei Yamaoka[1], Keisuke Inoue[1,2], Takashi Araki[1] ([1]Graduate School of Biostudies, Kyoto University, [2]Center for Living Systems Information Science (CeLiSIS), Kyoto University)

2P098 Dynamic changes in chromatin structure and transcriptional activity in bicellular pollen
Mio Shibuta K., Tsugumi Aso, Yutsuki Okawa (Fac. Sci., Yamagata Univ.)

2P099 Physiological role of CRMC, a protein possessing the cAMP-binding domain, in *Marchantia polymorpha*
Ranran Iwabuchi[1], Motoki Nakagami[1], Chiaki Yamamoto[1,2], Tomoyuki Furuya[1,3], Fumio Takahashi[1,4], Masahiro Kasahara[1] ([1]Grad. Sch. Life Sci., Ritsumeikan Univ., [2]Shimoda Marine Res. Center, Univ. Tsukuba, [3]Grad. Sch. Sci., Osaka Univ., [4]Faculty Pharma. Sci., Toho Univ.)

2P100 External Trehalose Application Potentially Enhanced Yield in Grapevines
Lia Ooi[1], Yoshinao Aoki[2], Shunji Suzuki[2] ([1]Plant & Microbial Research Unit, Research, Technology & Value Creation Division, Nagase Viita Co., Ltd., Okayama, Japan., [2]Laboratory of Fruit Genetic Engineering, The Institute of Enology and Viticulture, University of Yamanashi, Japan.)

2P101 Transcriptional regulation of TALE-class homeodomain transcription factors during male gametogenesis in *Marchantia polymorpha*
Mami Takagi[1], Keisuke Inoue[1,2], Kanta Kotani[1], Asuka Higo[1], Shohei Yamaoka[1], Takashi Araki[1] ([1]Grad. Sch. Biostudies, Univ. Kyoto, [2]Center for Living Systems Information Science (CeLiSIS), Univ. Kyoto)

■ Plant hormones/Signaling molecules

2P102 CYP83B1 mutant induces allelopathic effects by releasing IAA outside the plant body
Yui Kobayashi[1], Kang Xu[2], Emi Yumoto[4], Masashi Asahina[3,4], Ken-ichiro Hayashi[5], Hidehiro Fukaki[6], Masaaki Watahiki[7] ([1]Sch. Sci., Hokkaido Univ., [2]Sch. Agri. Biol., Shanghai Jiao Tong Univ., [3]Dept. Biosci., Teikyo Univ., [4]Adv. Inst. Anal. Center, Teikyo Univ., [5]Dept. Biochem., Okayama Univ. Sci., [6]Grad. Sch. Sci., Kobe Univ., [7]Fac. Sci., Hokkaido Univ.)

2P103 Isolation and characterization of *Arabidopsis* mutants hypersensitive to auxin by insertional tagging
Yoshiki Nishikawa, Hisabumi Takase, Jiro Sekiya, Rafael Prieto (Fac. Bioenviron. Sci., Kyoto Univ. Adv. Sci)

2P104 Small molecules and heat treatments reverse vernalization via epigenetic modification
Nana Otsuka[1], Hikaru Sawa[1], Yasuyuki Nomura[3], Nobutoshi Yamaguchi[1], Atsushi Nagano[3,4], Ayato Sato[2], Makoto Shirakawa[1], Toshiro Ito[1] ([1]Grad. Sch. Sci and Tech., NAIST, [2]WPI-ITbM, Nagoya Univ., [3]Fac. Agr., Ryukoku Univ., [4]IAB, Keio Univ.)

2P105 A devernalization inducer, DVR04, and its potential target in Arabiodopsis
Sena Harada[1], Nana Otsuka[1], Ayato Sato[2], Makoto Shirakawa[1], Toshiro Ito[1] ([1]Graduate School of Science and Technology, Nara Institute of Science and Technology, [2]Institute of Transformative Bio-Molecules, Nagoya University)

2P106 Comprehensive and High-Throughput Phytohormone Quantification Analysis at RIKEN CSRS
Mikiko Kojima[1], Yumiko Takebayashi[1], Hitoshi Sakakibara[1,2] ([1]CSRS., RIKEN, [2]Grad. Sch. BioagriSci., Nagoya Univ.)

2P107 Identification of key genetic player candidates in the biosynthesis of a putative plant hormone in *Arabidopsis thaliana*
Satoshi Ogawa[1,2,3], Kiyoshi Mashiguchi[1,4], Shinjiro Yamaguchi[1,4], David C. Nelson[2] ([1]Inst. for Chem. Res., Kyoto Univ., [2]Dept. of Bot. and Plant Sci., Univ. of California, Riverside, [3]CSRS, RIKEN, [4]Grad. Sch. of Agri., Kyoto Univ.)

2P108 P Selection and analysis of candidate biosynthetic genes for an unknown plant hormone that signals through KAI2
Qianfan Xu[1,2], Satoshi Ogawa[1,3], Kiyoshi Mashiguchi[1,2], Shinjiro Yamaguchi[1,2], David C. Nelson[3] ([1]Inst. for Chem. Res., Kyoto Univ., [2]Grad. Sch. of Agri., Kyoto Univ., [3]Dept. of Bot. and Plant Sci., Univ. of California, Riverside)

2P109 P Analysis of the small compound HYGIC that promotes hypocotyl growth
Yasuki Kawabata[1,2], Mizuki Murao[1], Asuka Higo[2], Naoyuki Uchida[2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Ctr. Gene Res., Nagoya Univ.)

2P110 P Functional analysis of a GRAS transcription factor that regulates GA-related far-red light response in *Marchantia polymorpha*
Eita Shimokawa[1], Shogo Kawamura[1], Rui Sun[1,2], Maiko Okabe[1], Yoshihiro Yoshitake[1], Yukiko Yasui[1], Shohei Yamaoka[1], Kiyoshi Mashiguchi[2], Shinjiro Yamaguchi[2], Takayuki Kohchi[1] ([1]Grad. Sch. Biostudies., Kyoto Univ., [2]Inst. Chem. Res., Kyoto Univ.)

2P111 P Transcriptome analysis of a SABATH methyltransferase mutant for exploring the genes responsive to GA-related compounds in *Marchantia polymorpha*

Takuya Segawa, Shogo Kawamura, Eita Shimokawa, Shohei Yamaoka, Yoshihiro Yoshitake, Takayuki Kohchi (Grad. Sch. Biostudies, Kyoto Univ.)

2P112 P The study for development of DLK2 agonist and evaluation of its activity

Yuki Saito, Kosuke Fukui (TUS, Applied Chemistry)

2P113 P Analysis of the molecular mechanism for novel plant growth promoter PPG

Sakurako Katsuta[1], Shun Takeno[2,3], Shota Tanaka[2,3], Keiya Kaga[1,7], Kazuma Ohata[1], Ayumi Yamagami[1], Takuya Miyakawa[1], Shoji Segami[4], Yasumitsu Kondo[2], Naoshi Dohmae[2], Kei Tsuzuki[3], Yoshiya Seto[3], Tetsuo Kushiro[3], Masayoshi Maeshima[5], Tadao Asami[6], Hiroyuki Osada[2], Takeshi Nakano[1] ([1]Grad. Sch. Bio., Univ. Kyoto, [2]RIKEN · CSRS, [3]Grad. Sch. Agr., Univ. Meiji, [4]NIBB, [5]Grad. Sch. Agr., Univ. Nagoya, [6]Grad. Sch. Agr., Univ. Tokyo, [7]Grad. Sch. S&E., Univ. Saitama)

2P114 P Chemical Screening for a Chemical Inhibitor of HTL/KAI2 Biosynthetic

Eri Niitsuma[1], Eri Adachi[2], Nao Endo[2], Kosuke Fukui[1,2], Jun Takeuchi[3,4] ([1]TUS, Grad. Sch. Sci, [2]TUS, Applied Chemistry, [3]Univ. Shizuoka, Agri, [4]Univ. Shizuoka, Inst. Green)

■ Photoreceptors/Photoresponses

2P115 Analysis of Phytochrome Signaling in the Temperature-dependent Light Responses in the Liverwort *Marchantia polymorpha*

Kentaro Goto[1], Keisuke Inoue[1,2], Rina Hattori[1], Yoshihiro Yoshitake[1,2], Takayuki Kohchi[1], Yukiko Yasui[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]Center for Living Systems Information Science (CeLiSIS), Kyoto Univ.)

2P116 Role of phytochromes in cold acclimation of the moss Physcomitrium patens

Seiya Inoue[1], Rin Ishikawa[1], Tatsunosuke Yamada[1], Hikaru Sugimori[1], Nana Eto[1], Airi Naka[1], Akihisa Shinozawa[1], Daisuke Takezawa[2], Izumi Yotsui[1], Teruaki Taji[1], Yoichi Sakata[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Grad. Sch. of Sci. and Eng., Saitama Univ.)

2P117 Functional Analysis of blue light signaling in stomatal opening mutants isolated by thermal imaging

Natsune Yukawa (Yamaguchi Univ.)

■ Flowering/Clock

2P118 P The effects of second messenger cyclic di-GMP on cyanobacterial circadian clock

Chihiro Yamaguchi[1], Robert Kanaly[1], Koichiro Takatsuki[1], Masaki Tsukamoto[2], Setsuyuki Aoki[2], Yoichi Nakahira[3], Yoshihiko Furuike[4], Shuji Akiyama[4], Mingxu Fang[5], Susan Golden[5], Shinsuke Kutsuna[1] ([1]Grad. Sch. Nanobioscience, Yokohama City Univ., [2]Grad. Sch. Informatics, Nagoya University, [3]Col. Agric., Ibaraki Univ., [4]Inst. Mol. Sci, Natl. Inst. Natural Sci., [5]Univ. California San Diego)

2P119 P CKL controls circadian clock period at higher temparatures

Mayuko Yamada, Akari Maeda, Norihito Nakamichi (Grad. Sch. Bio-agric., Univ. Nagoya)

2P120 P The light signaling modulates robustness of the circadian clock

Yoko Imakita[1], Takeshi Nomura[2], Yoshito Oka[3], Tomonao Matsushita[3], Norihito Nakamichi[2] ([1]School of agriculture, Nagoya Univ., [2]Graduate School of Bioagricultural Siences, Nagoya Univ., [3]Gradurate School of Science, Kyoto Univ.)

2P121 P Action mechanism of the period-shortening small molecule

Hiyori Fujikawa[1], Hiromi Matsuo[2], Ayato Sato[3], Norihito Nakamichi[2] ([1]School of Agriculture, Nagoya Univ., [2]Graduate School of Bioagricultural Scienses, Nagoya Univ., [3]Institute of Transformative Bio-Molcules, Nagoya Univ.)

2P122 Genes Characterizing the Japanese Morning Glory (*Ipomoea nil*) Strain Kidachi

Michiyuki Ono[1], Yining Yang[1], Daiki Takai[1], Yoshihito Suzuki[2], Yohei Higuchi[3], Kenta Shirasawa[4], Atsushi Hoshino[5,6], Eiji Nitasaka[7], Kimiyo Sage-Ono[1,8] ([1]T-PIRC, Univ. Tsukuba, [2]Col. Agr., Ibaraki Univ., [3]Dept. Agr. Env. Biol., Univ. Tokyo, [4]Kazusa DNA Res. Inst., [5]NIBB, [6]Grad. Inst. Adv. Stud., Sokendai, [7]Grad. Sch. Sci., Univ. Kyushu, [8]NIBIOHN)

2P123 The Effect of UV-B Irradiation on CO Stabilization and *FT* Expression in *Arabidopsis thaliana*

Ami Takahashi, Yuki Takahashi, Jun Hidema, Mika Teranishi (Grad. Sch. Life Sci., Tohoku Univ.)

■ Environmental response A/Physiological responses

2P124 Discovery of nutritropism in sorghum

Michiro Kazama, Runa Takei, Kiyoshi Yamazaki, Toru Fujiwara (Grad. Sch. Agri-Sci., Univ. Tokyo)

2P125 Contribution of amyloplasts to the gravity response of *M. polymorpha*

Mimi Hashimoto-Sugimoto[1], Takuya Norizuki[2,3], Shoji Segami[1,3], Yusaku Ohta[3,4], Noriyuki Suetsugu[5], Takashi Ueda[3], Miyo T. Morita[3] ([1]Grad. Sch. Bioagri. Sci, Nagoya Univ., [2]Inst. Mol. Cell. Reg., Gunma Univ., [3]NIBB, [4]ExCELLS, [5]Grad. Sch. Arts, Sci., Univ. Tokyo)

2P126 Specific Gravity of Stems (Caulids) in the Moss *Physcomitrium patens* Gametophores Grown in Hypergravity Environment

Hiroyuki Kamachi[1], Riu Ikeda[2], Ichirou Karahara[1], Yuko Hanba[3], Yuji Hiwatashi[4], Atsushi Kume[5], Tomomichi Fujita[6] ([1]Fac. Sci., Univ. Toyama, [2]Fac. Sci., Univ. Toyama, [3]Dept. Applied Biol., Kyoto Inst. Tech., [4]Sch. Food ind. Sci., Miyagi Univ., [5]Fac. Agri., Kyushu Univ., [6]Grad. Sch. Sci., Hokkaido Univ.)

2P127 Three-dimensional morphological analysis of rhizoid architecture of *Physcomitrium patens* using X-ray micro-CT data and machine learning

Naoki Yagihara[1], Takahisa Wakabayashi[2], Ryohei Yamaura[1], Daisuke Tamaoki[3], Hiroyuki Kamachi[3], Daisuke Yamauchi[4], Yoshinobu Mineyuki[4], Makoto Hoshino[5], Kentaro Uesugi[5], Yuji Hiwatashi[6], Yuko Hanba[7], Atsushi Kume[8], Tomomichi Fujita[9], Ichirou Karahara[3] ([1]Grad. Sch. Sci. Eng., Univ. Toyama, [2]Fac. Sci., Univ. Toyama, [3]Fac. Sci., Acad. Assemb., Univ. Toyama, [4]Grad. Sch. Sci., Univ. Hyogo, [5]JASRI, SPring-8, [6]Sch. Food Ind. Sci., Miyagi Univ., [7]Dept. Applied Biol., Kyoto Inst. Technol., [8]Fac. Agric., Kyushu Univ., [9]Fac. Sci., Hokkaido Univ.)

2P128 Regulation of plasma membrane H^+-ATPase dephosphorylation by PP2C.D in guard cells

Seiya Kimpara[1], Koji Takahashi[3], Kosuke Murakami[3], Yuki Hayashi[3], Toshinori Kinoshita[2,3] ([1]Sch. Sci., Univ. Nagoya, [2]WPI-ITbM, Univ. Ngoya, [3]Grad. Sch. Sci., Univ. Nagoya)

2P129 Analysis of the TOR Signaling Pathway in *Physcomitrella patens*

Kaito Yuki[1], Tatsuki Abe[1], Akiko Kozaki[1,2,3] ([1]Grad Sch of Sci Tech., Shizuoka Univ., [2]Fac of Sci., Shizuoka Univ., [3]Grad Sch of int Sci and Tech., Shizuoka Univ.)

■ Environmental response B/Environmental stresses

2P130 P Identification of Novel Stress-Responsive Genes in Rice Through Integrated Analysis of Public RNA-Seq Data Under Salt and Drought Stress Conditions

Mitsuo Shintani, Hidemasa Bono (Grad. Sch. Int. Sci., Hiroshima Univ)

2P131 P *Arabidopsis* GPPA dephosphorylates guanosine-pentaphosphate

Takanari Nemoto, Masataka Inazu, Shinji Masuda (Dept. Life Sci & Tech., Science Tokyo)

2P132 P Ethylene signaling-mediated submergence and droughtresponses in *Marchantiapolymorpha*

Tenra Ouchi[1], Ayaka Hasegawa[1], Chinatsu Nakajima[1], Akihisa Shinozawa[2], Yoichi Sakata[2], Daisuke Takezawa[1] ([1]Grad. Sch. Sci and Engineering., Saitama Univ., [2]Depart.Biosci. Tokyo Univ Agri.)

2P133 P Molecular Mechanisms Underlying DNA Damage-Induced Early Onset of Endoreduplication in *Arabidopsis*

Toshiki Wada[1], Ayako Sakamoto[2], Naoki Takahashi[1] ([1]Sch. Agri., Meiji Univ., [2]TIAQS, QST)

2P134 P Analysis of physiological responses to Fairy Chemicals in *Arabidopsis thaliana*

Koharu Nagai[1], Saika Kohinata[1], Yuki Taniguchi[1], Jun Takeuchi[1], Yasushi Todoroki[1], Jae-Hoon Choi[2], Hirokazu Kawagishi[1], Reiko Motohashi[1] ([1]Agr., Shizuoka Univ., [2]Glob. Int. Sci. Inno., Shizuoka Univ.)

2P135 P Decoding Gravity Responses for Space Agriculture: The Role of AP2/ERF Transcription Factors in *Physcomitrium patens*

Miyu Takata[1], Huong Thi Do[2], Alisa Vyacheslavova[2], Yuko Hanba[3], Hiroyuki Kamachi[4], Yoichi Sakata[5], Ichirou Karahara[4], Atsushi Kume[6], Tomomichi Fujita[7] ([1]Dept. Sci., Fac. Biol., Hokkaido Univ., [2]Grad. Sch. Life Sci., [3]Apld. Bio., Kyoto Inst Tech., [4]Fac. sci., Toyama Univ., [5]Dept. Biosci., Tokyo Univ. of Agric., [6]Fac. Agric., Kyusyu Univ., [7]Fac. Sci., Hokkaido Univ.)

2P136 Functional analysis of lipoxygenase involved in the biosynthesis of a novel UV-absorbing substance, saclipins, in *Aphanothece sacrum*

Yoshie Uchida, Hakuto Kageyama (Grad. Sch. Environ. Hum. Sci., Meijo Univ.)

2P137 Microalga *Euglena gracilis* accumulates diatoxanthin in response to low temperature stress

Shun Tamaki[1], Marumi Ishikawa[2], Keiichi Moshida[1,3,4,5] ([1]RIKEN CSRS, [2]CSRC, Fukuoka Univ., [3]RIKEN BZP, [4]Yokohama City Univ., [5]Nagasaki Univ.)

2P138 Impact of Drought Stress on Root Growth: Physiological and Molecular Perspectives

Selwan Abdelhakam (Tsukuba University)

2P139 Elucidation of mechanisms of plant stress memory induced by chemical priming with a specific class of lipid-based compounds in Arabidopsis and rice

Manhlinh Nguyen (Hiroshima University)

2P140 Oxylipin KODA enhances the early growth of rice (*Oryza sativa* L.) under low-temperature stress at night for a simulated natural temperature condition

Mineyuki Yokoyama[1,5], Takamitsu Kurusu[2], Hirokazu Ohno[3], Ouji Ifuku[3], Rayan Harada[4], Yuichi Tada[5] ([1]Organ. Strat. Coord. Res. Intell. Prop, Meiji Univ., [2]Depart. Mech. Electric. Engin., Suwa Univ. Sci., [3]Res. Devel. Div., Maruzen Pharm Co., Ltd., [4]Avisa Co., Ltd., [5]Sch. Biosci. Biotech, Tokyo Univ. of Tech.)

2P141 An analysis of a novel temperature-responsive gene, *STTP*, identified from weekly field transcriptome data of *Arabidopsis halleri* subsp. *gemmifera*

Kenta C. Moriya[1], Hanako Shimizu[1], Susumu Uehara[2], Genki Yumoto[1], Jiro Sugisaka[1], Ryutaro Tokutsu[3], Tomoo Shimada[3], Mika Nomoto[2], Yasuomi Tada[2], Haruki Nishio[1,4], Mie N. Honjo[1], Hiroshi Kudoh[1] ([1]CER, Kyoto Univ., [2]Center for Gene Res., Nagoya Univ., [3]Grad. Sch. Sci., Kyoto Univ., [4]DS AI Center, Shiga Univ.)

2P142 Analysis of light and environmental stress responses in ascorbate accumulation of *Nopalea cochenillifera*

Qiaochu Wang[1], Mai Takayama[2], Kazuya Yoshimura[1,2] ([1]Coll. Biosci. Biotech., Chubu Univ., [2]Dept. Food Nutr. Sci., Coll. Biosci. Biotech., Chubu Univ.)

2P143 Morphological Changes and Gene Expression Analysis of *Physcomitrium patens* under Artificial Microgravity Using a 3D Clinostat

Chiyo Jinno[1], Shingo Horiguchi[2], Satoshi Naramoto[1], Atsushi Kume[3], Tomomichi Fujita[1] ([1]Fac. Sci., Univ. Hokkaido, [2]DigitalBlast Co., Ltd., [3]Fac., Agr., Univ. Kyusyu)

2P144 Isolation of a *highly osmo-sensitive* (*hos*) mutant in the moss *Physcomitrium patens* and genetic mapping of its causal gene

Masaki Nakazawa, Takeru Ichihashi, Teruaki Taji, Yoichi Sakata, Izumi Yotsui (Dept. of Biosci., Tokyo Univ. of Agri.)

2P145 Light-Intensity-Dependent Quantitative Alterations in Acylplastoquinone Species

Ryo Ito, Mizuki Endo, Motohide Aoki, Shoko Fujiwara, Norihiro Sato (Tokyo University of Pharmacy and Life Sciences)

2P146 QTL Analysis for acclimation of photosystems to iron deficiency using barley cultivars Sarab1 and Musashinomugi

Karin Irie, Soichiro Matsuoka, Takehiro Kobayashi, Mayuko Furuhata, Yusuke Shikanai, Akihiro Saito, Kyoko Higuchi (Grad. Sch. Appl. Biosci., Tokyo Univ. Agri.)

2P147 Polyphosphate kinase 1 gene: Its role in polyphosphate synthesis and environmental stress acclimation in the cyanobacterium *Synechocystis* sp. PCC 6803

Mizuki Endo, Hiroki Nishi, Shoko Fujiwara, Mikio Tsuzuki, Norihiro Sato (Tokyo University of Pharmacy and Life Sciences)

2P148 Hyperosmolarity-induced suppression of group B1 Raf-like protein kinases modulates drought-growth trade-off in *Arabidopsis*

Yoshiaki Kamiyama[1,2], Sotaro Katagiri[1], Kota Yamashita[1], Yangdan Li[1], Hinano Takase[1], Taishi Umezawa[1] ([1]BASE, Tokyo Univ. Agric. Tech., [2]Grad. Sci. Sci., Kyoto Univ.)

2P149 Distinct Regulatory Gene Expression for Triacylglycerol Accumulation Between Arsenate-Stressed and Phosphorus-Depleted *Chlorella kessleri* Cells

Sorao Motegi, Yukari Izima, Yutaro Oishi, Reina Goto, Eriko Kimura, Shoko Fujiwara, Norihiro Sato (Grad. Life Sci. , Univ. Tokyo of Life Sci.)

2P150 Environmental responses after osmotic stress release in Arabidopsis root tips

Mayumi Nakayama[1], Nahoko Higashitani[1], Shinichi Sato[2] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]FRIS, Tohoku Univ)

2P151 Temperature Dependence of Photosynthetic activity and Xanthophyll cycle in *Racomitrium japonicum*

Fumino Maruo[1], Chihiro Azai[2], Satoshi Imura[3,4], Makiko Kosugi[5] ([1]New Field Pioneering Div. Toyota Boshoku Corp., [2]Faculty of Science and Engineering Chuo Univ., [3]National Institute of Polar Research, [4]The Graduate University for Advanced Studies (SOKENDAI), [5]National Institute for Basic Biology)

2P152 Chelation-based iron uptake enhances resilience to prolonged high-temperature stress in cool-season grasses

Anzu Minami[1,2], Yoshihiko Onda[1], Minami Shimizu[1], Yukiko Uehara-Yamaguchi[1], Tomoko Nozoye[3,4], Motofumi Suzuki[5], Asaka Kanatani[1], Keitaro Tanoi[4], Keiichi Mochida[1,2,6] ([1]RIKEN, CSRS, [2]Kihara Institute for Biological Research, Yokohama City University, [3]Center for Liberal Arts, Meiji Gakuin University, [4]Graduate School of Agricultural and Life Sciences, The University of Tokyo, [5]Aichi Steel Corporation, [6]School of Information and Data Sciences, Nagasaki University)

2P153 Analysis of hyperosmotic stress responses using Tak-1 and Tak-2 standard lines
Hiroki Kato, Takehide Kato, Ko Kato (Nara Institute of Science and Technology)

2P154 Dauciform root formation and nutrient status of Cyperaceae plants grown in harsh environments
Jun Wasaki[1,2], Xiao-Long Li[3], Akihiro Yamamoto[4], Daisuke Aoshima[1], Hirotsuna Yamada[1], Ryusuke Inoue[1], Soshi Osaki[1,5], Takayuki Nakatsubo[1,6], Jinniu Wang[7], Fei Peng[8], Toshihiro Watanabe[9], Jun Zhou[3] ([1]GSISL, Hiroshima Univ., [2]S-CNC, Hiroshima Univ., [3]IMHE, CAS, [4]Hiroshima Botanical Garden, [5]FEIAS, Waseda Univ., [6]Hiroshima Univ. Museum, [7]CIB, CAS, [8]NIEER, CAS, [9]Grad. Sch. Agr., Hokkaido Univ.)

2P155 Effects of seasonal changes and processing on antioxidant accumulation in *Neopyropia yezoensis*
Hakuto Kageyama[1], Rikio Nakamura[2], Satoru Kamohara[3] ([1]Grad. Sch. Env. Hum. Sci., Meijo Univ., [2]Onizaki Fish. Coop. Assoc., [3]IDEA Consultants, Inc.)

2P156 Isolation and characterization of γ-Glutamylcyclotransferase knockout mutants (*atggct*) in *Arabidopsis*
Kazue Horita[1], Minori Kosagi[1], Akihiro Okuda[2], Hisabumi Takase[1], Jiro Sekiya[1], Rafael Prieto[1] ([1]Fac. Bioenviron. Sci., Kyoto Univ. Adv. Sci, [2]Grad. Sch. Environ., Okayama Univ.)

2P157 Enhancement of growth under non-24 h period lighting conditions in Arabidopsis thaliana
Yuko Yamamoto (TOYOTA BOSHOKU CORPORATION)

■ Plant-organism interaction A

2P158 Identification of pathogenic bacterial effectors that suppress humidity-triggered immunity in *Arabidopsis thaliana*
Temma Takazawa, Shigetaka Yasuda, Yusuke Saijo (Div. Biol. Sci., NAIST)

2P159 Functional Analysis of CAP Family Genes in Root Gall Formation of Plant Parasitic Nematodes
Yujiro Sasamoto[1], Nao Kamino[2], Tomoko Hirano[4], Masa H. Sato[4], Shinichiro Sawa[3] ([1]Faculty of Science, Univ. Kumamoto, [2]GSST, Univ. Kumamoto, [3]IRCAEB, Univ. Kumamoto, [4]Grad. Sch. Life and Environ. Sci., Univ. Kyoto Pref.)

2P160 A fungal lncRNA secreted via extracellular vesicles of *Ustilago maydis* binds to the host plant LSm4 protein
You Tanaka, Hinata Ohtani, Fumiko Ishida, Miyuki Yamaguchi, Rei Yoshimoto, Shigeyuki Tanaka (Faculty of Agriculture, Setsunan Univ.)

2P161 Exploration of wheat metabolites involved in field resistance to fusarium head bright by non-target metabolome analysis
Masataka Nakano[1], Nana Ashikaga[2], Shizen Ohnishi[2], Makoto Kimura[3], Takumi Nishiuchi[1] ([1]Bioscience Core Facility, Kanazawa University, [2]Kitami Agricultural Experiment Station, Hokkaido Research Organization, [3]Graduate School of Bioagricultural Sciences, Nagoya University)

2P162 Relationships among temporal pattern of the two layers of defense responses accompanying hypersensitive cell death in tobacco BY-2 cells
Shigeru Hanamata[1,2], Kie Takeuchi[1], Tomoki Oshima[1], Ayumi Yoshida[1], Shigemi Seo[3], Ichiro Mitsuhara[3], Masaaki Okada[1], Takuya Sakamoto[2], Takamitsu Kurusu[4], Kazuyuki Kuchitsu[1] ([1]Appl. Biol. Sci., Tokyo Univ. of Sci., [2]Fac. Sci., Kanagawa Univ., [3]Inst. Agro. Sci., NARO, [4]Eng. and Mgmt., Suwa Univ. of Sci.)

2P163 Exploring lipid-based molecular dialogs between plants and microorganisms
Lin-Jie Shu, Yasuhiro Kadota, Ken Shirasu (RIKEN CSRS Plant Immunity Group)

2P164 Comparison of early transcriptomic changes to diverse microbial volatiles in *Arabidopsis*
Ching-Han Chang[1], Chung-Chih Huang[2], Pei-Yu Su[2], Yi-Rong Li[2], Yu-Shuo Chen[3], Chong-Yue Wang[2], Yuan-Yun Zhang[1], Hieng-Ming Ting[1,4], Hao-Jen Huang[2,3,5] ([1]Institute of Plant Biology, National Taiwan University, Taiwan, [2]Department of Life Sciences, National Cheng Kung University, Taiwan, [3]Institute of Tropical Plant Sciences and Microbiology, National Cheng Kung University, Taiwan, [4]Department of Life Science, National Taiwan University, Taiwan, [5]Graduate Program in Translational Agricultural Sciences, National Cheng Kung University and Academia Sinica, Taiwan)

2P165 P Molecular determinants of *Colletotrichum tofieldiae* virulence on *Arabidopsis thaliana* are phosphate-status dependent
Jacy Newfeld, Hiromi Haba, Kei Hiruma (Department of Life Sciences, University of Tokyo)

2P166 P Tracing Phytoplasma Secreted Effectors with Rearrangement Signatures
Isei Kyuu[1,2], Shikou Kaku[2,3], Shunnitsu You[1,2] ([1]Institute of Biochemistry, National Chung Hsing University, Taichung 402, Taiwan, [2]PhD Program in Microbial Genomics, National Chung Hsing University and Academia Sinica, Taichung 402, Taiwan, [3]Institute of Plant and Microbial Biology, Academia Sinica, Taipei 115, Taiwan)

2P167 P Investigate the Potential Roles *VIP3* and *TSN* 1/2 in Defensing Viral PTGS in *Arabidopsis thaliana*
LiangHe Chen (Institute of Biotechnology, National Taiwan University)

2P168 P Comparative analysis of Arabidopsis responses in pattern-triggered immunity induced by chitin oligosaccharides with varying degrees of polymerization

Ayae Sakai[1], Hironori Kaminaka[2] ([1]Dept. Agr. Sci., Grad. Sch. Sust. Sci., Tottori Univ., [2]Fac. Agr., Tottori Univ.)

2P169 P Investigation of the mechanisms by which the endophytic fungus *Colletotrichum tofieldiae* suppresses pathogen virulence in *Arabidopsis thaliana* roots

Akito Shiina, Kei Hiruma (Grad. Sch. of Arts and Sci., Univ. Tokyo)

2P170 P Calcium-dependent protein kinases regulate sustained ROS production during effector-triggered immunity in *Nicotiana benthamiana*

Yuta Hino[1], Mitsuhiro Yada[1], Yutaro Shiraishi[1], Miki Yoshioka[1], Hiroaki Adachi[2], Hirofumi Yoshioka[1] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]Grad. Sch. Agri., Kyoto Univ.)

■ Plant-organism interaction B

2P171 P Reconsideration of a method for isolating arbuscules from arbuscular mycorrhiza in *Lotus japonicus*

Sota Koinuma[1], Kensuke Kawade[2] ([1]Faculty of Science, Saitama University, [2]Graduate School of Science and Engineering, Saitama University)

2P172 P Genome-wide association study identifies key chromosomal regions in rice promoting the enrichment of diazotrophic iron-reducing bacteria in paddy soils

Liyen Lin[1], Zhihang Feng[1], Hikaru Asano[2], Yoshihiro Ohmori[3], Hirotomo Ohba[4], Yoko Masuda[1,5], Keishi Senoo[1,5], Toru Fujiwara[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Tokyo Coll. Biotech, [3]Agri. Bioinfo. Res. Unit, Grad. Sch. Agr. Life Sci., Univ. Tokyo, [4]Niigata Agr. Res. Inst., [5]Collab. Res. Inst. Innov. Micro., Univ. Tokyo)

2P173 P Enhancing Crop Growth and Soil Fertility in Taiwan's Badlands with Green Manure and PGPR

Yu-Shan Hou, Chao-Li Huang (Inst. Tropical Plant Sciences and Microbiology, NCKU, Taiwan)

2P174 The involvement of mycorrhiza-inducible glycerol-3-phosphate dehydrogenase (*GPDH3*) in arbuscule development in arbuscular mycorrhizal symbiosis

Shoko Omori, Katsuharu Saito (Grad. Sch. Sci., Univ. Shinshu)

2P175 The function of purple acid phosphatase in phosphorus transport during arbuscular mycorrhizal symbiosis

Natsuki Maeda (Agr., Univ. Shinshu)

2P176 Characteristics of endophytic Agrobacterium species strains derived from wheat and barley plants

Katsunori Suzuki[1], Kazuya Kiyokawa[2], Kazuhide Rikiishi[3], Akio Tani[3] ([1]Hiroshima Univ, Integrat. Sci. Life, [2]Hiroshima Univ, Genome. Edit. Inov. Centr., [3]Okayama Univ. Inst. Plant Sci. Resource)

2P177 The symbiotic relationship between *Colletotrichum tofieldiae* and *Arabidopsis thaliana* under phosphate starvation

Takeshi Higa, Yen-Ting Lu, Kei Hiruma (Grad. Sch. Arts and Sci., Univ. Tokyo)

2P178 The transcriptional regulator CoeR responds to sulfur-containing antimicrobial compounds and activates the transcription of the TAG lipase gene in *Burkholderia multivorans*

Shouta Nonoyama, Shinji Masuda (Dept. Life Sci & Tech., Science Tokyo)

2P179 Isolation and evaluation of microorganisms from Arabidopsis cultivation environment

Atsuko Iuchi[1], Megumi Narukawa[1], Akio Tani[2], Takao Iino[1], Yasunori Ichihashi[1], Satoshi Iuchi[1], Keitaro Tanoi[3], Natsuko I. Kobayashi[3], Masashi Asahina[4], Moriya Ohkuma[1], Hiroshi Abe[1], Masatomo Kobayashi[1] ([1]RIKEN BRC, [2]Okayama University, [3]Tokyo University, [4]Teikyo University)

■ Genome function/gene regulation

2P180 Genome sequencing of Arabis serrata, an alpine species

Tatsuaki Hirano[1], Kazuki Sugekawa[1], Yoshiharu Y. Yamamoto[1,2,3] ([1]Grad. Sch. Nat. Sci. Tech, Gifu Univ., [2]Fac. Appl. Biol. Sci, Gifu Univ., [3]RIKEN CSRS)

2P181 Analysis of DNA methylation and histone modification status in Marchantia Mp*met* mutant

Riko Kunou[1,2], Olivier Mathieu[3], Yoko Ikeda[1,2] ([1]Graduate School of Env., Life, Natural Sci., & Tech., Okayama Univ., [2]IPSR, Okayama Univ., [3]Universite Clermont Auvergne)

2P182 Functional analysis of endosperm-specific DNA methyltransferases in Arabidopsis

Hiroki Tsutsui, Hidetoshi Saze (Okinawa Institute of Science and Technology)

2P183 Gene expression optimization strategies in plant evolution: comparative analysis of expression manner between old and *de novo* genes in *Arabidopsis thaliana*

Takuya Nakagawa[1], Takuto Nakatsuji[2], Shoma Morita[1], Yusei Shigematsu[1], Soichirou Satoh[1,2] ([1]Grad. Life Env. Sci., Kyoto Pref. Univ., [2]Fac. Life Env. Sci., Kyoto Pref. Univ.)

2P184 A Seasonally Responsive Enhancer Regulates Transcription Through Repressive Chromatin Modification

Hanako Shimizu[1], Haruki Nishio[1,2], Hiroshi Kudoh[1] ([1]CER, Kyoto Univ., [2]DS center, Shiga Univ.)

2P185 Structural feature and function of pre-tRNA splicing enzymes from*Arabidopsis thaliana*

Kazuhito Akama[1,2], Moniruzzaman Mohammad[2], Naoki Okamoto[2] ([1]Faculty of Life and Environmental and Sciences, [2]Graduate School of Natural Science and Technology, Shimane University)

2P186 Transcriptome-wide analysis of poly(A) tail dynamics in the deadenylase mutant during shoot regeneration

Toshihiro Arae[1], Sota Kurachi[2], Kosuke Kawai[2], Riko Imahori[2], Yukako Chiba[2,3], Misato Ohtani[1] ([1]Grad. Sch. Frontier Sci., Univ. Tokyo, [2]Grad. Sch. Life Sci., Hokkaido Univ., [3]Fac. Sci., Hokkaido Univ.)

2P187 Exploring Recombinant Plant Cytidine to Uridine Editing Factors in Heterologous Setups

Jingchan Xie[1], Yingying Yang[2], Mareike Schallenberg-Ruedinger[2], Volker Knoop[2] ([1]Lab. Plant Molecular Genetics, Kyoto University, [2]IZMB-Institute of Cellular & Molecular Botany, University Bonn)

2P188 Functional analysis of the extended loop of ribosomal protein uL4c in chloroplast ribosome assembly

Yuki Hayashi[1], Seidai Takamatsu[2], Hitoshi Onouchi[1], Yui Yamashita[1], Satoshi Naito[1,2] ([1]Grad. Sch. Agr., Univ. Hokkaido, [2]Grad. Sch. Life Sci., Univ. Hokkaido)

2P189 Gene expression analysis of soybean grown in soil that different previous crops have grown

Hidefumi Hamasaki[1], Tomoko Kuriyama[1], Yuko Makita[2], Masaharu Kawauchi[1], Takashi Kenjyo[3], Katsuhiro Kojima[3], Toyoaki Anai[4], Haruko Takeyama[5], Minami Matsui[1,6] ([1]RIKEN CSRS, [2]Maebashi Institute of Tech., [3]ASAHI AGRIA CO., [4]Kyusyu Univ., [5]Waseda Univ., [6]Yokohama City Univ.)

2P190 P Effects of high temperature stress on the target preference of de novo DNA methylation in *Arabidopsis thaliana*

Shumpei Takeuchi[1,2], Sayaka Tominaga[1], Taiko To[1] ([1]Institute of Science Tokyo, School of Life Science and Technology, [2]University of Tokyo, Graduate School of Frontier Science)

2P191 P Identification of Factors Regulating the Expression of Crassulacean Acid Metabolism (CAM) Related Genes Involved in Photosynthetic Conversion in Ice plant

Yuri Kondo[1], Tien Nguyen[1], Wataru Tashiro[1], Manami Mori[1], Kazuyuki Saito[2], Sakae Agarie[2] ([1]Graduate School of Bioresource and Environmental Sciences, Kyushu University, [2]Graduate School of Agriculture, Kyushu University)

2P192 P Regulatory mechanisms of apocarotenoid accumulation in reddish somaclonal Satsuma mandarin mutant

Tomoka Matsuda[1], Eriko Kuwada[1], Maho Iida[2], Koichiro Ushijima[1], Yasutaka Kubo[1], Takashi Akagi[1,3] ([1]Grad. Sch. Environ. Life Nat. Sci. & Tech., Okayama University, [2]Faculty of Agriculture, Okayama University, [3]Nihon BioData Co.Ltd.)

2P193 P Identification and functional analysis of HISE1-interacting proteins in *Arabidopsis thaliana*

Soichiro Suda[1], Emi Mishiro-Sato[2], Keiko Kano[2], Takashi L. Shimada[1] ([1]Fac. Hort., Chiba Univ., [2]Nagoya Univ.)

■ New technology

2P194 P Establishment of a highly efficient *Agrobacterium*-mediated transformation system of the insect gall forming plant *Rhus chinensis*

Ayaka Nuruki[1], Hiroto Fujii[2], Norihiro Ohtsubo[2] ([1]Sch. Life Environ. Sci., Kyoto Pref. Univ., [2]Grad. Sch. Life Environ. Sci., Kyoto Pref. Univ.)

2P195 P Validation of Fluoppi, a new assay system for visually detecting protein-protein interactions in living plant cells

Tsubasa Hattori[1], Yuki Tomita[1], Keisuke Inoue[1,2], Takashi Araki[1], Shohei Yamaoka[1] ([1]Grad. Sch. Biostudies., Kyoto Univ., [2]CeLiSIS., Kyoto Univ.)

2P196 P Classification of plant phosphorus status using high-resolution camera

Jaime Villarraga, Jun Wasaki (Graduate School of Integrated Life Sciences, Hiroshima University)

2P197 Development of transgene-free and DSB-free genome-editing system using removable CRISPR base-editing vectors in microalga, *Nannochloropsis oceanica*

Keishi Moroi, Tomokazu Kurita, Takashi Yamamoto (Hiroshima Univ. Genome Editing Innov.)

2P198 Transport of Meganuclease Protein from Agrobacterium to Plant Cell via a Type III Secretion System

Kota Fujihara[1], Ichiro Mitsuhara[2], Masaki Endo[2], Mysore Kiran[3,4], Seiichi Toki[1,2,5,6] ([1]Grad. Sch. Agr., Univ. Ryukoku, [2]Inst. Agrobiol. Sci., NARO, [3]Dept. Biochem. Molbiol., [4]Oklahoma State Univ., [5]Grad. Sch. Nanobio., Yokohama City Univ., [6]Kihara Inst. Biol. Res., Yokohama City Univ.)

2P199 Construction of a Meiotic Recombination Detection System in Plants

Tomoka Asakawa[1], Masaki Endo[2], Seiichi Toki[1,2,3,4], Hiroaki Saika[2] ([1]Grad. Sch. Agr., Univ. Ryukoku, [2]Inst. Agrobiol. Sci., NARO, [3]Grad. Sch. Nanobio., Yokohama City Univ., [4]Kihara Inst. Res., Yokohama City Univ.)

2P200 T7 RNAP-based random mutagenesis in an intrinsic target gene in rice

Honoka Osabe[1], Hiroaki Saika[2], Seiichi Toki[1,2,3,4], Ayako Yokoi[2], Masaki Endo[2] ([1]Grad. Sch. Agr., Univ. Ryukoku, [2]Inst. Agrobiol. Sci., NARO, [3]Grad. Sch. Nanobio., Yokohama City Univ., [4]Kihara Inst. Biol. Res., Yokohama City Univ.)

2P201 Development of cloning system for problematic genes

Neo Araya[1], Junhao Wang[2], Yasuhiro Matsuo[3], Hideaki Nojiri[2], Takushi Hachiya[1], Kazunori Okada[2], Tsuyoshi Nakagawa[1] ([1]Cent. Integ. Res. Sci., Shimane Univ., [2]Agro-Biotech. Res. Cent. Grad. Sch. Agr. Life Sci., Univ. Tokyo, [3]Fac. Life Env. Sci., Shimane Univ.)

2P202 Deep learning-based cytoskeleton segmentation for accurate high-throughput measurement of cytoskeleton density

Ryota Horiuchi[1], Asuka Kamimura[1], Yuga Hanaki[2], Hikari Matsumoto[2], Minako Ueda[2], Takumi Higaki[1] ([1]GSST, Kumamoto Univ., [2]GSLS, Tohoku Univ.)

2P203 Virtual staining for label-free quantitative analysis of plant cell structures using bright-field microscopy

Manami Ichita[1], Haruna Yamamichi[2], Takumi Higaki[1] ([1]Grad. Sch. Sci. Tech., Kumamoto Univ., [2]Fac. Sci., Kumamoto Univ.)

2P204 Trial of vitrified cryopreservation of duckweed holobionts and analyses of regrowth rates after long-term storage in liquid nitrogen

Shogo Ito[1,3], Daisuke Tanaka[2], Tokitaka Oyama[1,3] ([1]Dept. Bot., Div. Biol. Sci., Grad. Sch. Sci., Kyoto Univ., [2]Research Center of Genetic Resources, NARO, [3]JST/JICA-SATREPS)

2P205 Developing Carbon Transformation Technology Inspired by Plant Enzymes

Yuma Shisaka, Shuhei Kusano, Shinya Hagihara (RIKEN CSRS)

■ Bioresources

2P206 New mutant collections in NBRP-Tomato developed by fast-neutron and heavy ion beam irradiation

Koichi Sugimoto[1], Norio Kikuchi[2], Takashi Shimokawa[3], May Sweet[2], Hiroshi Ezura[1] ([1]Univ. Tsukuba, T-PIRC, [2]Quantum Flowers & Foods Co. Ltd., [3]QST, Institute for Quantum Medical Science)

2P207 RIKEN BRC's 2024 Initiatives for the Collection, Distribution, and Quality Control of Plant Cell Resources

Toshihiro Kobayashi, Mayumi Sugawara, Yuri Shitomi, Yukie Aso, Atsuko Iuchi, Hiroko Saito, Masatomo Kobayashi (RIKEN BRC)

2P208 OrchidBase 6.0: Increasing the number of Cymbidium (Orchidaceae) genomes and new bioinformatic tools for orchid genome analysis

Wen-Chieh Tsai (Institute of Tropical Plant Sciences and Microbiolohy, National Cheng Kung University)

2P209 Characterization of Arabidopsis mutant lines provided by RIKEN BRC

Satoshi Iuchi, Fumie Mori, Atsuko Iuchi, Hiroko Saito, Yukie Aso, Masatomo Kobayashi (RIKEN BRC Experimental Plant Division)

■ Science education

2P210 How to understand appropriate or inappropriate authorship in research ethics education

Emiko Harada (The University of Shiga Prefecture)

2P211 Design, Print, Discover! - Using Computer-aided Design, 3D Printing, and Programming to Build Experimental Design Skills and Investigate *Euglena* Phototaxis

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