The 64th Annual Meeting of the Japanese Society of Plant Physiologists

https://jspp.org/annualmeeting/64/

Date: March 10th (Fri) through March 17th (Fri), 2023

Venue: in hybrid style (both online and on-site at Kawauchi-kita Campus, Tohoku University)

Kawauchi-kita Campus, Tohoku University
41 Kawauchi, Aobaku, Sendai, Miyagi 980-8576, Japan
(Japanese: https://www.tohoku.ac.jp/japanese/profile/campus/01/kawauchi/)
(English: https://www.tohoku.ac.jp/en/about/map_directions.html)

You can attend the meeting by logging in the ORSAM portal site (WEB abstract)
(Japanese: https://jspp.org/annualmeeting/64/)
(English: https://jspp.org/annualmeeting/64/e_greeting.php)
The ORSAM portal site will be closed on March 31st, 2023.

Banquet: HOTEL METROPOLITAN, SENDAI JR-East

1-1-1 Chuo Aobaku, Sendai, Miyagi 980-8477, Japan
(https://sendai.hotel-metropolitan.com/)

Organizing Committee

President: Junko Kyozuka
Organizing Committee Chair: Jun Hidema
Accounting: Shusei Sato, Kei Saito
General Affairs: Jun Hidema, Nobuyuki Uozumi, Yasuhiro Ishimaru, Kei Saito
Venue: Hiroyuki Ishida
Program Committee: Minako Ueda, Mitsue Miyao, Toru Nakayama, Yuji Hiwatashi, Koji Mikami, Toshihiko Hayakawa, Akira Kanno, Taiyo Toriba, Mika Teranishi, Shun Hashimoto,
Online Advisor: Takeshi Obayashi, Seiji Takahashi
Online: Yusuke Kimata, Shuhei Miyashita, Aino Komatsu, Seiji Takahashi
Website, SNS: Yuichi Aoki
General Schedule: Yousuke Takaoka
Exhibition and advertisement: Minoru Ueda, Masaru Bamba
Satellite Meeting: Ryusuke Yokoyama
Presentations by High School Students: Shun Hashimoto, Masao Watanabe, Yukihiro Ito
Banquet: Junko Kyozuka, Jun Hidema, Shusei Sato
Nursery: Kei Saito
Cloak: Nobuharu Fujii

Conference Secretariat

Nakanishi Printing Co., Ltd.
Shimodachiuri-Ogawa, Kamigyo-ku, Kyoto 602-8048, Japan
E-mail: jspp2023@nacos.com

Meeting Information

Program

1. General Information

1-1. Important Notice

1) Response to new coronavirus infections

There continues to be concern about the spread of COVID-19 infection. The government and the Ministry of Health, Labor and Welfare (https://www.kantei.go.jp/jp/headline/kansensho/coronavirus.html) have called for infection control measures. The 64th Annual Meeting of the Japanese Society of Plant Physiologists in Sendai will be held from March 10th to 17th. This meeting will bring together many people, so we ask that each participant take good care of his or her health and wear a mask to prevent infection. This annual meeting is co-organized with Graduate School of Life Sciences, Tohoku University. The response in the venue will be in accordance with the "Response to New Coronavirus Infections" at Tohoku University (https://www.tohoku.ac.jp/japanese/disaster/outbreak/01/outbreak0101/). Since the situation is constantly changing, we will analyze the situation and consider the best way to deal with the situation, while maintaining close contact with the JSPP headquarters and related academic societies. Therefore, the information in this document is subject to change. Please see the latest information on the meeting website (Japanese: https://jspp.org/annualmeeting/64/, English: https://jspp.org/annualmeeting/64/e_greeting.php).

2) Hybrid meeting

The 64th Annual Meeting will be held in a hybrid style, with poster presentations online and all presentations other than poster presentations, including general presentations, symposia and ceremonies, at the Kawauchi-Kita Campus of Tohoku University. Online participants are requested to log in to the web abstracts (ORSAM portal) on the annual meeting website with their registration ID and password. After logging in, you can attend all sessions, including general presentations, symposia, database workshops, award ceremonies, luncheon seminars, company exhibitions and related meetings. Poster presentations of high school students' biological research will be given on-site but will not be distributed online. For the latest information on the Annual Meeting, please visit the Annual Meeting website (https://jspp.org/annualmeeting/64/).

3) Program

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

4) 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.

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

- The deadline for registration and payment of the registration fee is February 6th (Monday), 2023. 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.
- You cannot register for participation on-site.
- For those who have completed their registration, please do not forget to bring the postcard for the name tag, which will be sent at the beginning of March. Please take a name tag holder at the cloaks and oral presentation rooms.
- The password for logging into the ORSAM portal site will be sent to registered participants.

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

General oral presentations, including symposia, luncheon seminars, award lectures, and database workshop, will be

held both on-site and via Zoom meetings.

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

- Poster viewings and discussions will be carried out using the ORSAM portal site and its Comments section during the annual meeting (from March 10th, 9:00 to March 14th, 16:00).
- Poster discussions using Zoom Meeting are also scheduled for from March 13th, 9:00 to 16:00. It should be noted that it is NOT necessary for a presenter to create and register a Zoom ID. The organizing committee will arrange the Zoom Meeting for poster discussion. Poster numbers are divided into PA–PD groups, and core times have been set for each group during the time periods listed below. Presenters are requested to enter their respective Zoom breakout rooms during the corresponding core time and discuss with the participants.

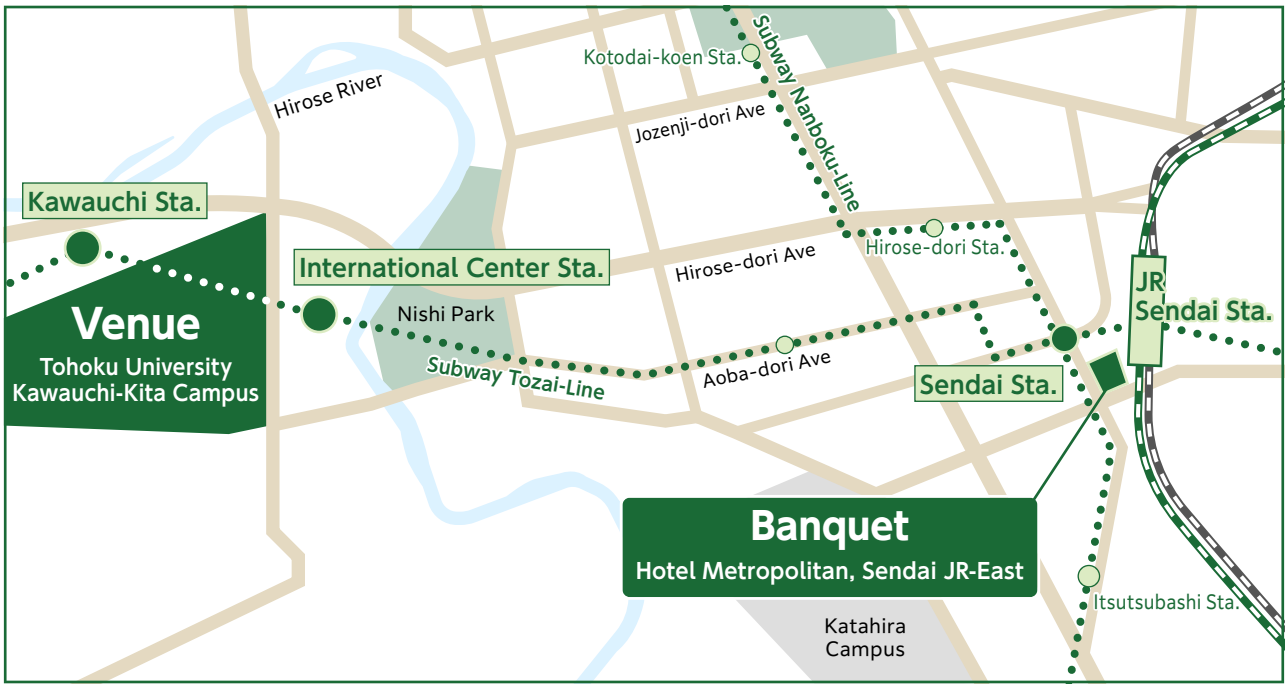
  March 13th (Mon) AM PA/PB: 9:00–10:30, PC/PD: 10:30–12:00

  March 13th (Mon) PM PA/PC: 13:00–14:30, PB/PD: 14:30–16:00

About the Meeting Logo

The logo of the 64th Annual Meeting was designed by Dr. Yuma Takahashi, Graduate School of Science, Chiba University. The logo consists of a crescent moon in front of Date Masamune's helmet, with "Hagi," the symbol of Miyagi Prefecture, and various plants planted within it, and is intended to express our wishes for the development of Miyagi and Sendai.

Venue and Access



DIRECTIONS

Venue: Tohoku University Kawauchi-Kita Campus

From JR Sendai Station

By subway

Take the subway from Sendai Station to Kawauchi Station (6 mins) and exit at South 1 or 2

Take the subway from Sendai Station to Kokusai Center Station (4 mins). Walk 5 mins from there.

By taxi: About 15 mins,¥1300

From Sendai Airport to JR Sendai Station

By Sendai Airport Access Line: Take the line from Sendai Airport Station to Sendai Station (30 mins)

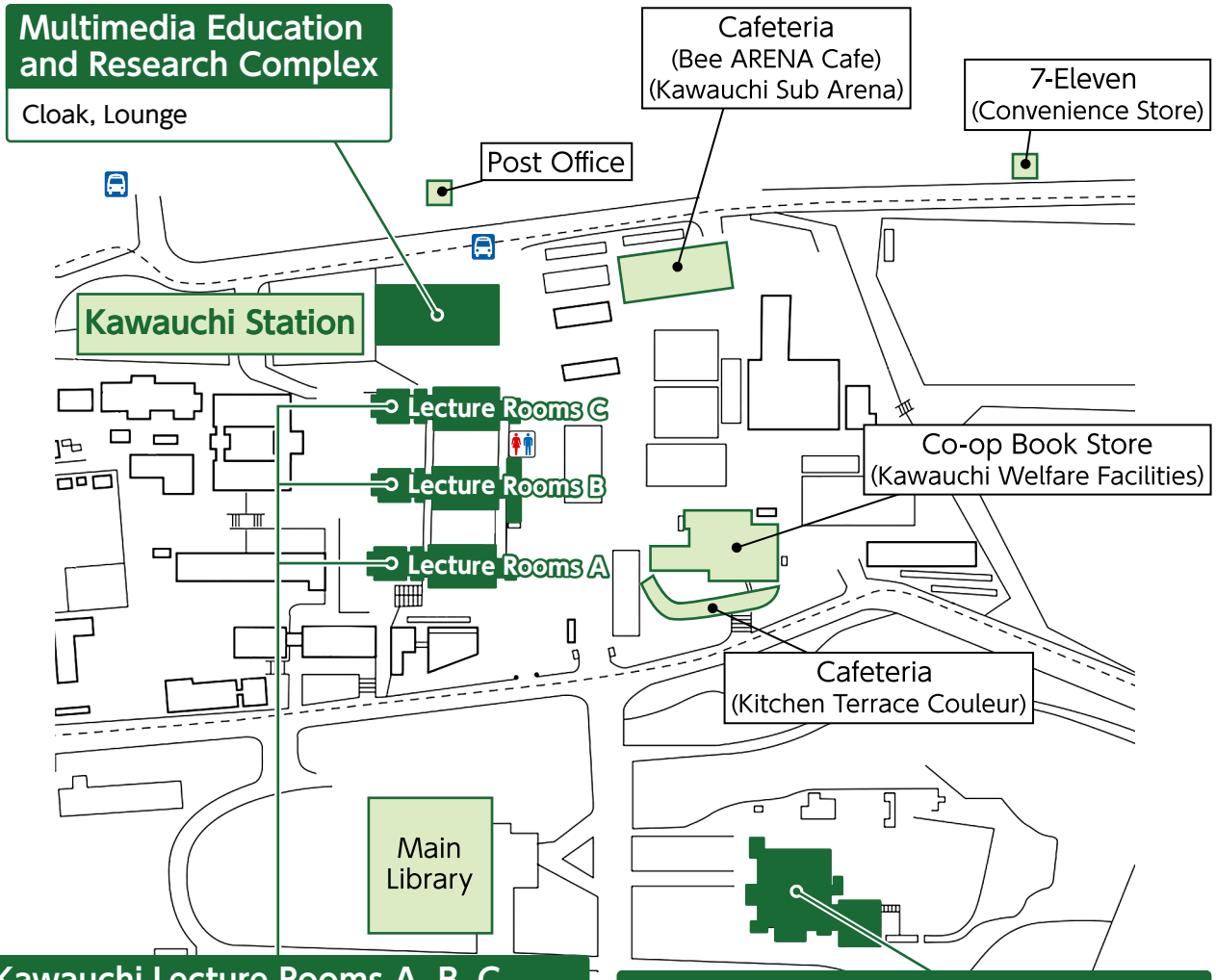
By taxi: About 50 mins, ¥6000

Banquet: Hotel Metropolitan, Sendai East

Walk 1 min from Sendai Station (subway and JR)

Campus Map

Tohoku University Kawauchi-Kita Campus



Kawauchi Lecture Rooms A, B, C

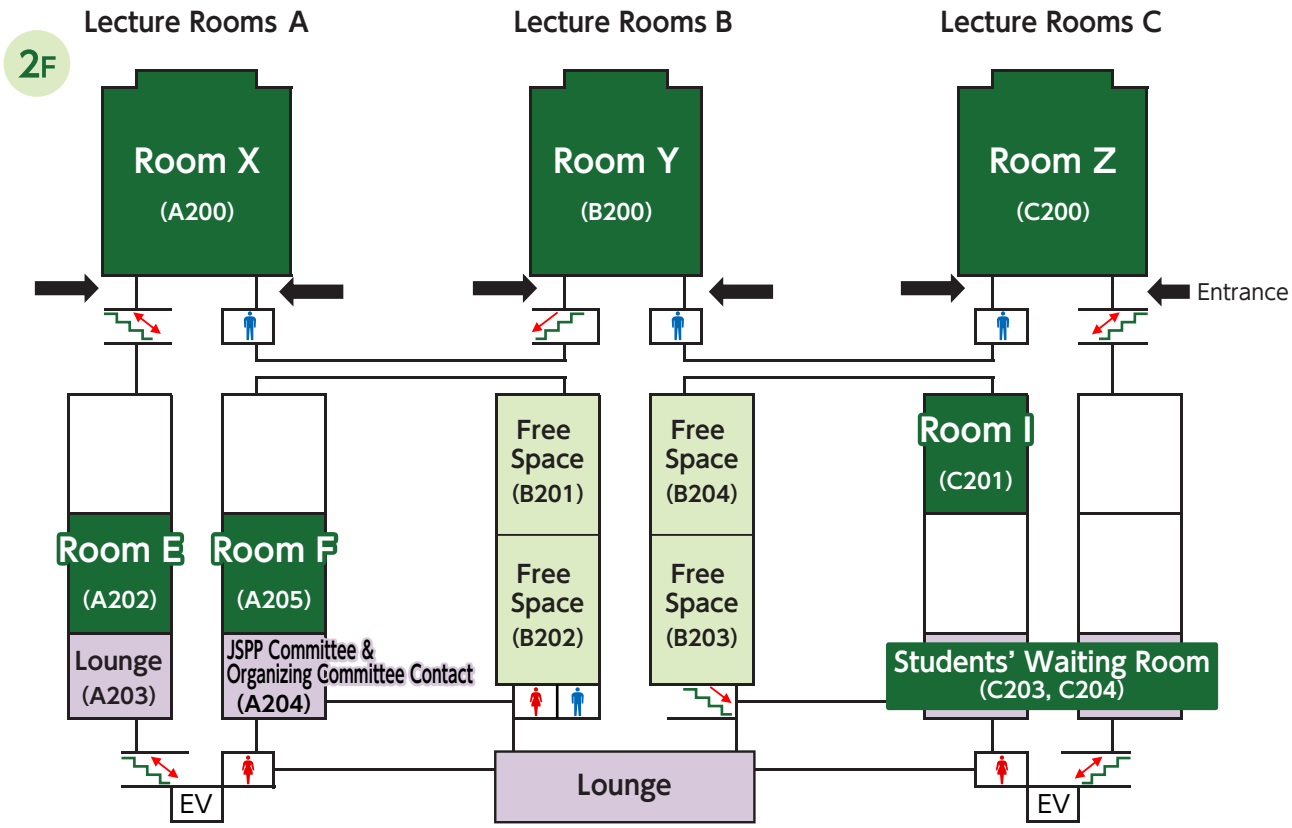
Oral Presentation
Symposium
Research Presentations by High School Students
Exhibition Booths
JSPP Committee & Organizing Committee Contact

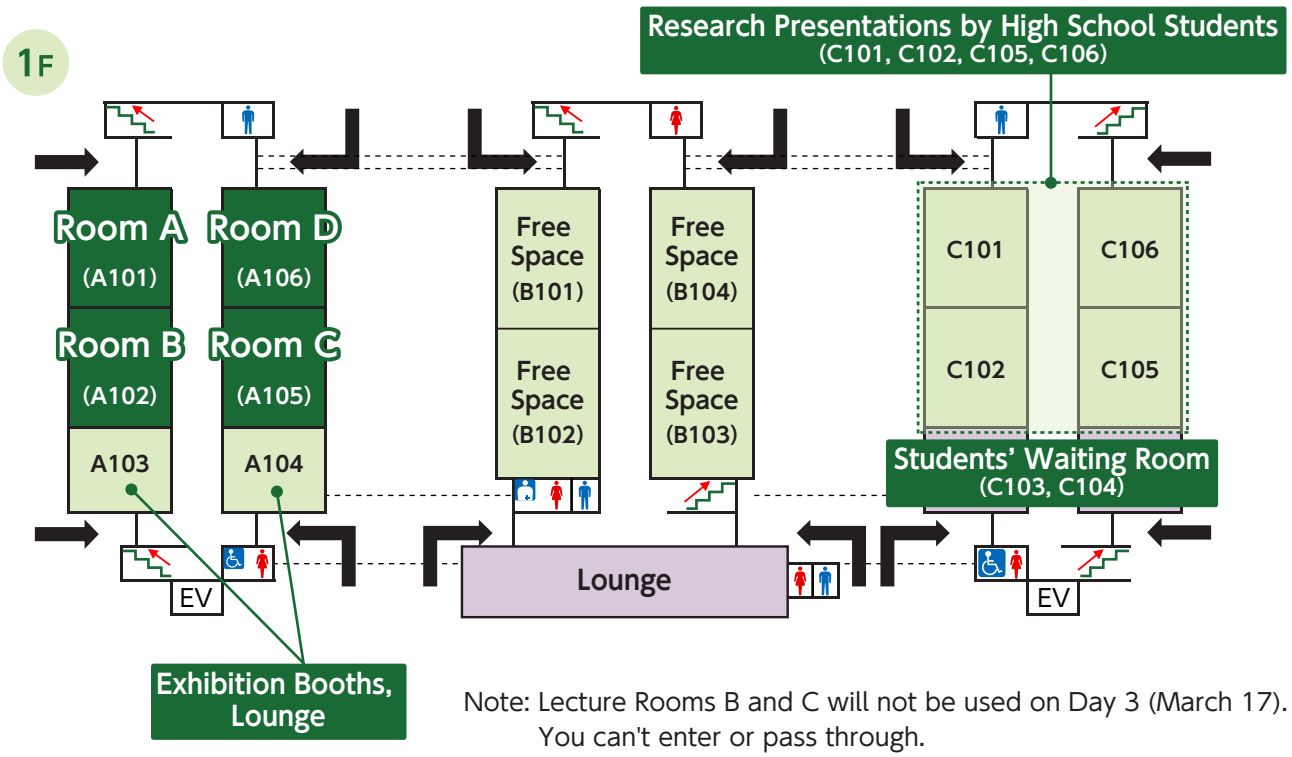
Kawauchi Hagi Hall (Centennial Hall)

JSPP Awards: Ceremony and Award

Conference Room

Kawauchi Lecture Rooms (1F, 2F)

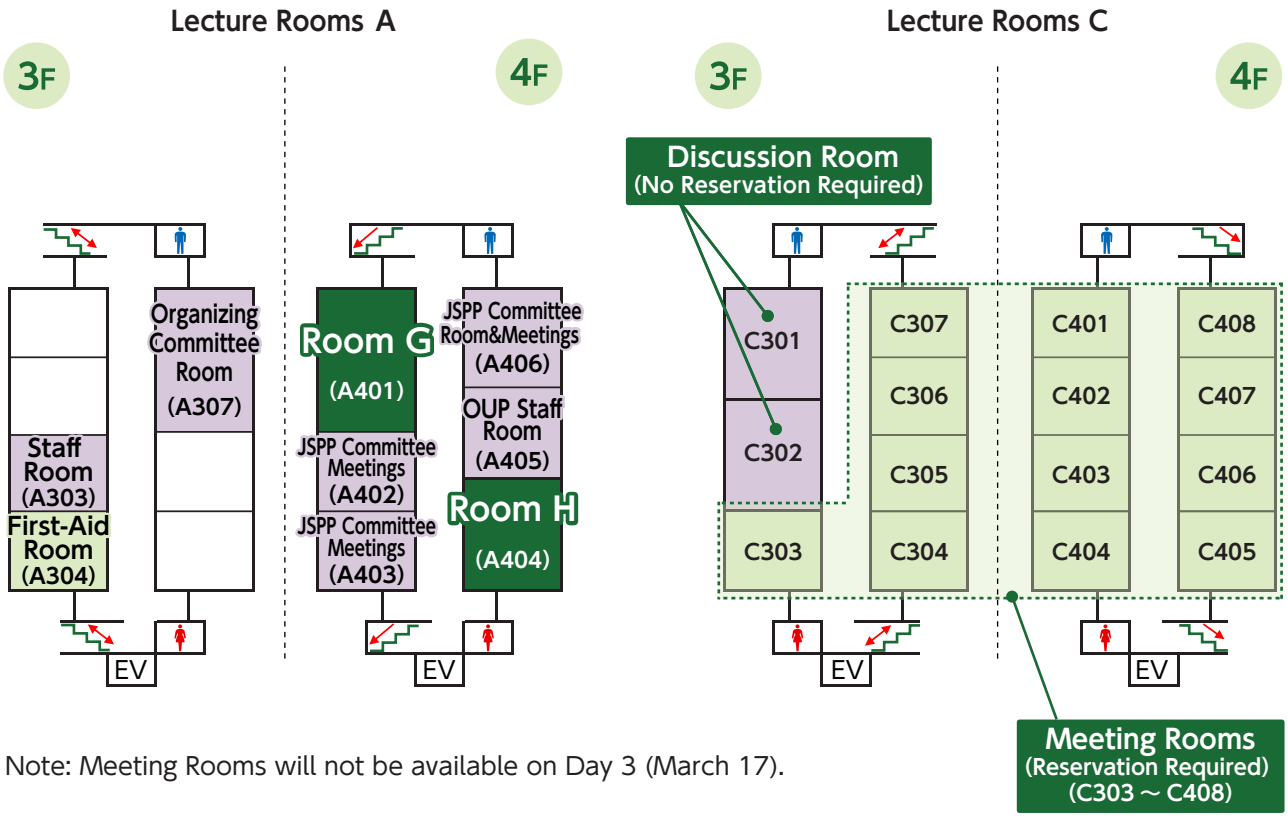




Note: Lecture Rooms B and C will not be used on Day 3 (March 17).
You can't enter or pass through.

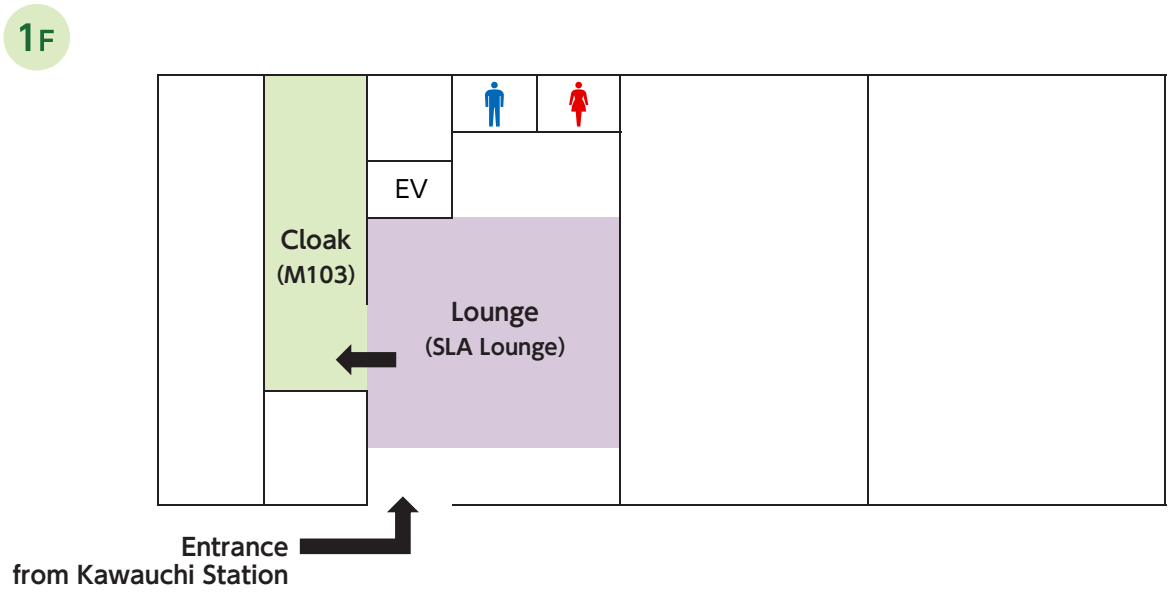
Conference Room

Kawauchi Lecture Rooms (3F, 4F)



Note: Meeting Rooms will not be available on Day 3 (March 17).

Multimedia Education and Research Complex



1-3. Registration of Participants

- You cannot register for participation on-site. Be sure to register from the website of the 64th Annual Meeting by February 6th (Monday).
- The password for logging into the ORSAM portal site will be sent to registered participants.
- Participants (limited to those who have paid the registration fee) will receive a certificate of participation, a receipt, and a simplified bound program. Online participants are also requested to log in to the web abstracts (ORSAM portal) on the 64th Annual Meeting website with their registration ID and password to participate in the 64th Annual Meeting.
- Always wear your name tag on your chest 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. In preparing figures and tables, please refer to the website of "Barrier-Free Presentation Methods for Colorblind People" (http://cudo.jp/cbf/).

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, but if you select "No preference" 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. If the presentation language is Japanese, please include the Japanese version of the title. A poster file should be prepared in a series of A4 (29.7 cm in width × 21.0 cm in height) sheets (viewers can see a poster by scrolling down the pages) and converted to a PDF whose file size must be smaller than 3 MB (less than 2 MB (strongly recommended) will work better in the system). Please upload the PDF to the registration system between February 20th 27th. The details of how to upload a poster will be announced later. Note that participants can view but not download the PDF.

   *Please make sure to upload PDF files. Due to system settings, you cannot upload files other than PDF files.

   <Poster viewing and discussion>

   - Posters will be available for viewing in the web abstracts (ORSAM portal) and for questions and answers in the comments box throughout the poster presentation period (March 10th, 9:00 a.m. – March 14th, 16:00 p.m.). Please respond to questions posted in the comments section in a timely manner.

   <Poster discussion time using Zoom Meeting>

   - An online discussion and Q&A session will be held on March 13th. Poster numbers are divided into PA–PD groups, with core times for each set at the times listed below.

     March 13th (Mon) AM PA/PB: 9:00–10:30, PC/PD: 10:30–12:00

     March 13th (Mon) PM PA/PC: 13:00–14:30, PB/PD: 14:30–16:00

   - When you are presenting by Zoom Meeting, please enter the Zoom Meeting from "Zoom" in the poster room

(Room P) and enter the breakout room of your poster number for your presentation and discussion during the above time.

- For poster presentations, you may use files (e.g. PowerPoint files) other than those posted on the web abstracts (ORSAM portal) for screen sharing.
- Poster data will be available in the web abstracts (ORSAM portal) until March 31st. If you wish to delete your poster data after the Annual Meeting, please check the "Delete" box when you upload 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

- 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 will connect to the Zoom meeting and share their slides on the screen. The Zoom screen received by the host PC will be projected on the screen at the venue. Since this annual meeting is a hybrid meeting, presentations will not be given via cable connection.
- Presenters are requested to enter Zoom meeting URL that will be sent by e-mail from the Annual Meeting. An eduroam account will be issued for internet access at the venue. Presenters are requested to enter the Zoom meeting before the previous presenter finishes his/her presentation and to wait at the next presenter's table 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.
- Please set the Zoom meeting with the video camera on and microphone off and use the microphone at the venue for your presentation. Please note that if you make a mistake in the settings, you may cause audio feedback. Audio from the venue will be distributed to online participants via a host PC.
- Laser pointers cannot be used. Presenters are requested to use the pointer function of their own PCs, as online audience can also see the pointer.
- Please deactivate "Screen Sharing" after your presentation as soon as possible.
- Presentations will be streamed via Zoom Meeting and online participants will be able to listen to them on the spot.

Online presentations

- Online presenters use the Zoom meeting. Presenters are requested to connect to the URL that will be sent by e-mail from the annual meeting.
- Screen Name should be composed of "Abbreviated affiliation" and "Your name."
- Zoom meetings will be opened 15 minutes to each session.
- 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 cancel "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 your hand" function of the Zoom meeting and wait for the chairperson to call you. Please remove your raised hand at the end of the Q&A period. Questions and answers can also be submitted in the comments box on the abstract page of the web abstracts (ORSAM portal). Presenters are requested to reply to the questions and comments by "Reply" 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 "4. Oral presentations" above or ask the organizers of your symposium for details.

1-5. Notes for Chairpersons

- If you are a chairperson, please come to the venue at least 15 minutes before the session and give your name to the room attendant (host PC operator / timekeeper).
- When it's time, please start your session using the microphone at the venue. Please check the host PC to see if online participants are "raising their hands" to make questions and comments. To avoid sound troubles, please don't enter the Zoom meeting with 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

All participants will receive an eduroam account that can be used at the venue during the exhibition. However, for the stable connection of presenters, only the presenters and chairpersons of the relevant session may use the wireless LAN at the presentation room. For other purposes, please use the break room, etc. The eduroam account and the instruction will be provided on the postcard mailed to those who have made a reservation.

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 setting poster files to not downloading, 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.

1-9. 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.

1-10. Free Space, Discussion Room, Meeting Room

During the two-day event from March 15 to 16, a Free Space, a "Discussion Room" for meetings of about 5 people for joint research, etc. and a "Meeting Room" for meetings of several dozen people for joint or project research, etc. will be available. There is no charge for the use of these rooms, and they will be open from 9:00 to 17:00 on March 15, and from 9:00 to 14:00 on March 16. Please note that the meeting room will not be open on the 17th, the last day of the Annual Meeting, due to the venue.

1) Free Space

This space can be used freely by one person. Wireless LAN is available. It can also be used as a break room.

2) Discussion Room

A panel-divided space in a lecture room at the venue is available for use as a discussion room for small meetings of about 5 people. No reservations are required to use these discussion rooms. Please feel free to use any available space.

3) Meeting Room

A lecture room that can accommodate up to 49 people can be used as a meeting room. The meeting room is equipped with a projector, microphone, speakers, etc., and can be used for large joint research or project research meetings of several dozen people.

Please note that the number of meeting rooms is limited, and their use is by reservation only. Representatives of teams/organizations wishing to use the meeting rooms are requested to contact the Annual Meeting Secretariat (jspp2023@nacos.com) by March 10 as follows.

Name (1 representative)

Affiliation

E-mail address

Desired date, time, and hybrid support

1-11. Lunch

The following cafeterias and stores are available on Kawauchi-Kita Campus during the Annual Meeting. Please note that there are few restaurants around Kawauchi-Kita Campus.

Kawauchi-Kita Campus Area: Bee Arena Café (Special menus will be served during the meeting), Co-op Kitchen Terrace Couleur, Co-op Shop, etc. Please check the location on the campus map.

1-12. Cloakroom

The cloakroom will be located in the lounge on the first floor of Multimedia Education and Research Complex. The cloakroom will be open during the following hours. Please be sure to pick up your baggage before the end of the day.

March 15th (Wed): 8:30–17:30

March 16th (Thu): 8:30–16:30

March 17th (Fri): 8:30–17:00

1-13. 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 outsourced nursery staff. Please refer to the "Information on the Childcare Room" on the Annual Meeting website for details including the terms of use. Due to space limitations, the number of children who can be accommodated is limited, so those who make reservations in advance will be given priority. The deadline for applications is February 26th, 2023 (Registration will be closed when it reaches the maximum number).

1-14. Contact Information

Contact to the Conference Secretariat or the JSPP Secretariat

Send any questions to the Annual Meeting Committee by e-mail to jspp2023@nacos.com, or contact to Organizing Committee Contact (A204). To contact the JSPP Secretariat, please contact the JSPP Committee Contact (A204).

2. Contents of the Annual Meeting

2-1. Banquet

A banquet will be held at Hotel Metropolitan, Sendai JR-East from 18:00 on March 16th (Thu). The banquet venue is directly connected to JR Sendai Station, so it is convenient to use the Sendai City Subway to get there from the venue of the award lecture. Participants (limited to those who have made a reservation in advance and paid the registration fee) are requested to remember to bring their registration cards. You cannot register for participation on the meeting days.

2-2. JSPP Awards Ceremony and Award Lectures

Date and time: March 16th (Thu) 14:30–16:30

Venue: Hagi Hall, Tohoku University. Please see the program p. 19 for details.

2-3. Symposia

Nine symposia will be held at the 64th Annual Meeting. For the contents and purpose of each symposium, please see the program p. 20 for details.

Date and time: Day 1, March 15th (Wed) 9:30–12:30

♦ **S01** Exploratory genomic evolutions and reproductive adaptations in plants (Room X)

♦ **S02** Plant Strategies for Survival Revealed from Regulatory System of Resource Allocation (Room Y)

♦ **S03** Current development of genome editing: From various novel tools to potential applications (Room Z)

Date and time: Day 1, March 15th (Wed) 14:00–17:00

♦ **S04** Artificial designs of plant-soil-microbe relationships stop global warming (Room X)

♦ **S05** Circadian and Seasonal Mechanisms in Plant Development and Physiology (Room Z)

Date and time: Day 2, March 16th (Thu) 9:00–12:00

♦ **S06** A look at the world of environmental stress through the perspective of P700 oxidation (Room X)

♦ **S07** Japan-Singapore Binational Symposium: Plant Science & Precision Agriculture (Room Z)

Date and time: Day 3, March 17th (Fri) 9:00–12:00

♦ **S08** Plant biology in the era of single-cell omics (Room X)

Date and time: Day 3, March 17th (Fri) 13:30–16:30

♦ **S09** A frontier in plant sensing and receptor research (Room X)

2-4. The 19th Database Workshop

Date and time: Day 2, March 16th (Thu) 9:00–12:00

Venue: Room Y

Organizers: Kentaro Yano (Meiji Univ.)

Please see the program p. 29 for details.

2-5. 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 will be distributed as a separate supplement (PDF).

Date and time: March 16th (Thu) 11:00–16:00

Venue: C101, C102, C105, C106 (On-site only)

11:00–12:00 The 1st half core time of poster presentations (poster presentation, question-and-answer session)

12:00–13:00 The 2nd half core time of poster presentations (poster presentation, question-and-answer session)

13:50–14:20 Award ceremony (Hagi Hall Tohoku University)

2-6. Luncheon Seminars

Registration is not required. Please see the outline on the meeting website (https://jspp.org/annualmeeting/64/e_greeting.php) and the program p. 30 for details.

♦ GeneBay Luncheon Seminar

Date and time: March 15th (Wed) 12:45–13:45

Venue: Room X

Sponsor: GeneBay, Inc.

♦ PCP Luncheon Seminar "Publishing Success with Plant & Cell Physiology"

Date and time: March 15th (Wed) 12:45–13:45

Venue: Room Z

Organizer: PCP Editors Committee, Sponsor: Oxford University Press

♦ EVIDENT Luncheon Seminar

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

Venue: Room X

Organizer: EVIDENT corp.

♦ JSPP Luncheon Seminar "An Encouragement of Studying/Working Abroad"

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

Venue: Room Z

Organizer: JSPP International Committee/United Japanese researchers Around the world (UJA)

♦ JSPP Luncheon Seminar "How we should hire and get hired: from large-scale survey data to think our field of research"

Date and time: March 17th (Fri) 12:15–13:15

Venue: Room X

Organizer: JSPP Gender Equality Committee

2-7. Satellite Meetings

Please see the outline on the program p. 35 for details.

♦ The 25th Plant Organelle Workshop

Date and time: March 14th (Tue) (The day before the Meeting), 13:00–18:50

Venue: Room Z

Representative Organizer: Dr. Yoshiki Nishimura (Kyoto University)

♦ 2nd Symposium on Phototrophic Prokaryotes

Date and time: March 14th (Tue) (The day before the Meeting), 13:30–18:00

Venue: Room Y

Representative Organizer: Dr. Jiro Harada (Kurume University)

♦ Phytohormones analysis workshop

Date and time: March 14th (Tue) (The day before the Meeting), 14:30–17:00

Venue: Room X

Representative Organizer: Dr. Masashi Asahina (Teikyo University)

♦ The 40th Meeting of the Japanese Society for Young Plant Physiologists

Date and time: March 14th (Tue) (The day before the Meeting), 18:00–20:00

Venue: Room X

Representative Organizer: Dr. Konan Ishida (University of Cambridge)

♦ 15th Plant Membrane Symposium

Date and time: Day 3, March 17th (Fri), 15:00–16:30

Venue: Room G

Representative Organizer: Dr. Maki Katsuhara (Okayama University)

2-8. JSPP Committee Meetings

Date and time: March 14th (Tue) (The day before the meeting)

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

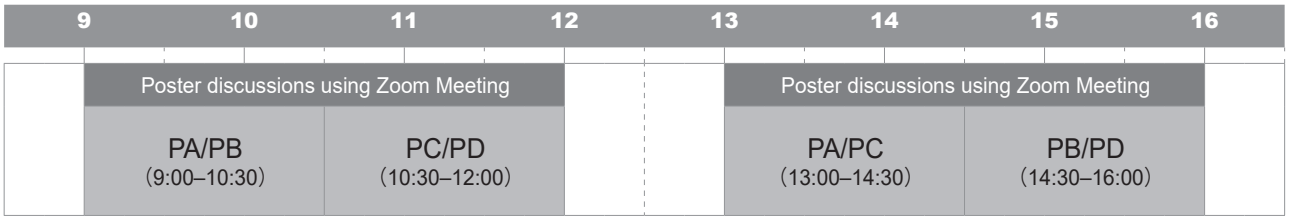
The other committee meetings will be held online on other dates.

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

Time table March 10th (Fri) through March 17th (Fri) Online

Poster viewings using the ORSAM portal (from March 10th to March 17th)

Poster discussions using Zoom Meeting (March 13)



Time table Day 1, Wed., March 15

in hybrid style (both online and on-site at Kawauchi-kita Campus, Tohoku University)

	9	10	11	12	13	14	15	16	17	18	19
A		Photosynthesis					Photosynthesis				
B		Membrane trafficking					Biomembrane/Ion and solute transport				
C		Genome function/ gene regulation					Genome function/gene regulation				
D		Environmental response A/ Physiological responses					Specialized (secondary) metabolism				
E		Plant hormones/Signaling molecules					Reproduction				
F		Environmental response B/ Environmental stresses					Environmental response B/ Environmental stresses				
G		Development/Morphogenesis					Development/Morphogenesis				
H		Photoreceptors/ Photoresponses					Plant-organism interaction B				
I		Systems biology					Systems biology				
X		Symposium S01 Exploratory genomic evolutions and reproductive adaptations in plants			Luncheon Seminar GeneBay, Inc.		Symposium S04 Artificial designs of plant-soil-microbe relationships stop global warming				
Y		Symposium S02 Plant Strategies for Survival Revealed from Regulatory System of Resource Allocation					New tecnology				
Z		Symposium S03 Current development of genome editing: From various novel tools to potential applications			Luncheon Seminar PCP		Symposium S05 Circadian and Seasonal Mechanisms in Plant Development and Physiology				
Q											
Other											

Time table Day 2, Thu., March 16

in hybrid style (both online and on-site at Kawauchi-kita Campus, Tohoku University)

	9	10	11	12	13	14	15	16	17	18	19
A	Photosynthesis										
B	Biomembrane/Ion and solute transport										
C	Organelles/Cytoskeleton										
D	Specialized (secondary) metabolism										
E	Reproduction										
F	Environmental response B/ Environmental stresses										
G	Development/Morphogenesis										
H	Plant-organism interaction A										
I	New technology										
X	Symposium S06 A look at the world of environmental stress through the perspective of P700 oxidation				Luncheon Seminar EVIDENT corp.						
Y	The 19th Database Workshop										
Z	Symposium S07 Japan-Singapore Binational Symposium: Plant Science & Precision Agriculture				Luncheon Seminar International Committee						
Kawauchi Hagi Hall							JSPP Awards: Ceremony and Lectures				
Other	Research Presentations by High School Students Poster posting		• On-site only •							• On-site only •	
			Special Program: “Research Presentations by High School Students” Discussion, Award ceremony								
			The 1st half core time of poster presentation	The 2nd half core time of poster presentation	Award ceremony (Kawauchi Hagi Hall (Centennial Hall)) 13:50–14:20		Discussion				Banquet (Hotel Metropolitan, Sendai East)

Time table Day 3, Fri., March 17

in hybrid style (both online and on-site at Kawauchi-kita Campus, Tohoku University)

	9	10	11	12	13	14	15	16	17	18	19
A	Photosynthesis					Cell cycle/Cell division					
B	Primary metabolism					Primary metabolism					
C	Organelles/Cytoskeleton					Cell wall					
D	Environmental response A/ Physiological responses					Photoreceptors/Photoresponses					
E	Plant hormones/Signaling molecules					Plant hormones/Signaling molecules					
F	Environmental response B/ Environmental stresses					Environmental response B/ Environmental stresses					
G	Development/Morphogenesis					Flowering/Clock					
H	Plant-organism interaction B					Plant-organism interaction B					
I											
X	Symposium S08 Plant biology in the era of single-cell omics				Luncheon Seminar on Gender Equality	Symposium S09 A frontier in plant sensing and receptor research					
Y											
Z											
Q											
Other											

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

Date Thu., March 16, 14:30–16:00 **Venue** Hagi Hall

14:30 Reports on Selection Process — Chairpersons of Award Committee

14:45 JSPP Award, JSPP Young Investigator Awards, PCP Award and PCP Top Cited Paper Awards — JSPP President

15:00 Honorary Membership Award — JSPP President
Kiyotaka Okada (Ryukoku Univ. Ryukoku Extension Center · Adviser, Kyoto Univ. · Honorary Professor, NIBB · Honorary Professor, SOKENDAI · Honorary Professor)

Award Lectures

Language: Japanese

15:10 A01 JSPP Award
"Study on molecular mechanisms of cytokinin biosynthesis and the action underlying plant growth regulation"
Hitoshi Sakakibara (Grad. Sch. Bioagric. Sci., Nagoya Univ.)

15:30 A02 JSPP Young Investigator Award
"Elucidation of root development mechanisms based on spatiotemporal cellular dynamics"
Tatsuaki Goh (Div. Biol. Sci., NAIST)

15:40 A03 JSPP Young Investigator Award
"Elucidation of diverse physiological functions of lipid droplets in plants"
Takashi L. Shimada (Grad. Sch. Hort., Chiba Univ.)

15:50 A04 PCP Award
Keisuke Yoshida and Toru Hisabori (2021)
"Biochemical Basis for Redox Regulation of Chloroplast-Localized Phosphofructokinase from *Arabidopsis thaliana*"
Plant Cell Physiol. 62 (3): 401–410
Keisuke Yoshida (Lab. Chem. Life Sci., Inst. Innovative Res., Tokyo Inst. Tech.), et al.

Exploratory genomic evolutions and reproductive adaptations in plants

Date Wed., March 15, 9:30–12:30 **Venue** Room X

Co-sponsored by Grant-in-Aid for Transformative Research Areas (A) "Genomic dynamics underlying the plastic hermaphroditism in plants: the basis of exploratory reproductive adaptations"

Organizers: Keiko Sakakibara (Rikkyo Univ, Dep Lif Sci) / Sota Fujii (Univ Tokyo, Grad Sch Agric Lif Sci)

Plants cannot move on their own, and therefore have variable reproductive strategies to adapt to their saprophytic environment. This symposium invites researchers working with diverse plant groups in fields ranging from molecular to ecological to present the latest topics on innovative genome evolution and mechanisms found in the factors responsible for plant reproduction.

09:30 Opening remarks

Chairperson: Keiko Sakakibara

09:35 S01-1 Toward a molecular understanding of haploid sex determination using monoecious *Physcomitrium patens*
Emiko Yoro[1], Seiya Suzuki[1], Rumiko Kofuji[2], Keiko Sakakibara[1] ([1]Dept. Life Sci., Rikkyo Univ., [2]Coll. Sci. & Engr., Kanazawa Univ.)

09:55 S01-2 Identification of a factor involved in plant spermatogenesis — molecular evolution of a basal body protein BLD10 —
Shizuka Koshimizu (NIG · Biological Networks)

10:15 S01-3 Diverse mechanisms of germ cell attraction in seed plants
Satohiro Okuda[1], Yukiho Toyama[1], Haruto Yahiro[2], Yakumo Watanabe[1], Naohiro Matsuda[3], Takuya Nagae[4], Yuta Sunakawa[2], Ryo Suda[2], Xingyue Jin[1], Takamasa Suzuki[5], Tetsuya Higashiyama[1] ([1]Grad. Sch. Sci., UTokyo, [2]Dept. Biol. Sci., Fac. Sci., UTokyo, [3]Dept. Biol. Sci., Fac. Sci., Nagoya Univ., [4]Grad. Sch. Sci., Nagoya Univ., [5]Grad. Sch. Biosci. Biotech., Chubu Univ.)

10:35 S01-4 Molecular dynamics of the male-female cellular interaction in plant reproduction
Sota Fujii[1,2] ([1]U Tokyo, Grad Sch Agric Lif Sci, [2]Suntory SunRiSE)

10:55 Break

Chairperson: Sota Fujii

11:00 S01-5 Seasonal regulation of plant reproduction in the natural environment
Akane Kubota[1], Yoshinori Kondo[1], Shigeo S Sugano[2], Tomoaki Muranaka[3], Motomu Endo[1], Takato Imaizumi[4] ([1]Dev. of Bioscience, NAIST, [2]Bioproduction Research Institute, AIST, [3]Fac. of Agriculture, Kagoshima Univ., [4]Dept. of Biol., Univ. of Washington)

11:20 S01-6 Spatial control of ARGONAUTE-mediated RNA silencing in anther development
Reina Komiya (OIST)

11:40 S01-7 Breaking the mold: innovative plant sex chromosome evolution
Takashi Akagi (Grad Sch Environ Life Sci, Okayama University)

12:00 S01-8 Evolutionary genetics of adaptation and diversification of floral scents that control pollinators
Yudai Okuyama (National Museum of Nature and Science)

12:25 Closing remarks

Plant Strategies for Survival Revealed from Regulatory System of Resource Allocation

Date Wed., March 15, 9:30–12:30 **Venue** Room Y

Organizers: Tomohiro Uemura (Grad. Sch. Humanities and Sciences, Ochanomizu University) / Hiroyuki Tsuji (Biosci. Biotechnol. Center, Nagoya Univ.) / Kyoko Miwa (Grad. Sch. Environ. Sci., Hokkaido Univ.)

When we take into consideration plants' characteristics, such as longevity and the potential to reach giant sizes, we suggest that plants are a sustainable system to operate resources allocation, which is summarized as "production – transport – utilization". In this symposium, we will rethink plant responses to environmental conditions, as well as their growth, development and metabolism, as the matter of control for resource allocation.

Chairperson: Kyoko Miwa

09:30 Introduction

09:35 S02-1 Plant strategies for environmental responses driven by regulatory system of resource allocation
Masami Yokota Hirai[1,2], Ryosuke Sugiyama[3,4] ([1]RIKEN CSRS, [2]Grad. Sch. Bioagric. Sci., Nagoya Univ., [3]Grad. Sch. Pharm. Sci., Chiba Univ., [4]PRESTO, JST)

09:54 S02-2 Developmental phase transition of the resource allocation
Hiroyuki Tsuji[1,2] ([1]Biosci. Biotechnol. Center, Nagoya Univ., [2]Kihara Inst. Biol. Res., Yokohama City Univ.)

10:13 S02-3 Resource Management in Operations Research and Its Application to Plant Resource Allocation Strategies
Shoji Kasahara (Div. Info. Sci., NAIST)

Chairperson: Tomohiro Uemura

10:32 S02-4 Regulatory system for xylem vessel function determining plant resource allocation
Misato Ohtani[1,2,3], Taku Demura[2,3] ([1]Grad. Sch. Front. Sci., Univ. Tokyo, [2]Div. Biol. Sci., NASIT, [3]RIKEN, CSRS)

10:51 S02-5 Long-distance signaling via phloem
Michitaka Notaguchi (Bioscience and Biotechnology Center, Nagoya University)

11:10 S02-6 Imaging of symplastic/apoplastic resource allocation in plants
Masatsugu Toyota[1,2,3] ([1]Dept. Biochem. Mol. Biol., Saitama Univ., [2]Suntory Foundation for Life Sciences, [3]Dept. Bot., UW-Madison)

Chairperson: Hiroyuki Tsuji

11:29 S02-7 Carbon Resource Partitioning in Microalgae and Cyanobacteria Quantitatively Elucidated by Metabolome Analysis
Yuichi Kato[1,2], Tomohisa Hasunuma[1,2] ([1]Eng. Biol. Res. Ctr., Kobe Univ., [2]Grad. Sch. Sci. Technol. Innov., Kobe Univ.)

11:48 S02-8 Dynamics of resources transport controlled by TGN
Tomohiro Uemura (Graduate School of Humanities and Sciences, Ochanomizu University)

12:07 S02-9 Regulatory mechanisms for resource allocation in plant response to mineral nutrient availability
Kyoko Miwa (Grad. Sch. Environ. Sci., Hokkaido Univ.)

12:26 Conclusion
Tomohiro Uemura

Current development of genome editing: From various novel tools to potential applications

Date Wed., March 15, 9:30–12:30 **Venue** Room Z

Co-sponsored by Cross-ministerial Strategic Innovation Promotion Program (SIP)

Organizers: Masaki Endo (NARO) / Ayako Nishizawa-Yokoi (NARO) / Daisuke Miki (Chinese Academy of Sciences)

CRISPR/Cas9 and other genome editing technologies are very powerful tools from both research and application aspects. In addition to Cas9, new genome editing technologies have been developed in Japan, including the TiD system, Cas9 with improved PAM sequence recognition, and base editors. In this symposium, recent advances and applications of genome editing technologies and delivery of genome editing tools will be presented, including future prospects.

Chairperson: Daisuke Miki

09:30 Opnenig remarks
Masaki Endo

09:35 S03-1 Improvement of genome editing efficiency using proxy-CRISPR
Masaki Endo[1,2,3,4], Katsuya Negishi[5], Seiichi Toki[1,3,4,6] ([1]Institute of Agrobiological Sciences, NARO, [2]Research Center for Agricultural Information Technology, NARO, [3]Grad. Sch. Nanobio., Yokohama City Univ., [4]Kihara Inst. Biol. Res., Yokohama City Univ., [5]Institute of Fruit Tree and Tea Science, NARO, [6]Fac. Agr., Ryukoku Univ.)

09:55 S03-2 TiD genome editing platform for plant genetic engineering
Yuriko Osakabe (Sch. Life Sci. & Tech, Tokyo Tech)

10:15 S03-3 Genome editing methods for chloroplasts and mitochondria
Issei Nakazato, Chang Zhou, Nanami Kosaka, Yoshiki Harada, Ayako Hosoda, Shin-ichi Arimura (Graduate School of Agricultural and Life Sciences, University of Tokyo)

Chairperson: Masaki Endo

10:35 S03-4 Precise genome editing with DNA or RNA templates in rice
Ayako Nishizawa-Yokoi (Institute of Agrobiological Sciences, NARO)

10:55 break

11:05 S03-5 CRISPR/Cas9-meidated gene targeting in Arabidopsis
Daisuke Miki (PSC, Chinese Adademy of Sciences)

11:25 S03-6 Biolistic delivery of genome-editing enzymes into pollen and development of the peripheral technologies
Yoko Mizuta[1], Sachi Minagawa[2], Saeko Tanaka[3], Hiroshi Ezura[4] ([1]Nagoya Univ., IAR, ITbM, [2]NIPPN, Co., Ltd., [3]FASMAC, Co., Ltd., [4]Univ. Tsukuba, Facul. Life Env. Sci., T-PIRC)

Chairperson: Ayako Nishizawa-Yokoi

11:45 S03-7 Plant Gene Editing Using Virus Vectors
Kazuhiro Ishibashi, Tetsuya Yoshida (Institute of Agrobiological Sciences, NARO)

12:05 S03-8 Introducing the *in planta* Particle Bombardment (iPB) — No culture, no DNA, and no time-to-waste method for crop genome editing
Ryozo Imai[1,2] ([1]NARO Inst. Agrobiol. ci., [2]Fac. Life Environ. Sci)

12:25 Closing remarks
Ayako Nishizawa-Yokoi

Artificial designs of plant-soil-microbe relationships stop global warming

Date Wed., March 15, 14:00–17:00 **Venue** Room X

Organizer: Satoshi Ohkubo (Grad Sch of Life Sci, Tohoku Univ)

Chemical fertilizers and expanding farmland have accelerated increase in greenhouse gases, nitrous oxide and methane. The Moonshot project, "Mitigation of greenhouse gas emissions from agricultural lands by optimizing nitrogen and carbon cycles," aims to design new ecosystems by combining the functions of plants, soil, and microorganisms. Four topics from the project will be presented at this symposium.

Chairperson: Satoshi Ohkubo

14:00 Opening remarks

14:15 S04-1 Elucidating soil functions and designing soil aggregate for climate change mitigation
Rota Wagai, Kaori Matsuoka (Institute for Agro-Environmental Sciences, NARO)

14:45 S04-2 Optimizing root nodule symbiosis to create N_2O reduced soybean cultivation systems
Haruko Imaizumi-Anraku (NIAS, NARO)

15:15 Break

Chairperson: Yuichi Aoki

15:30 S04-3 Root Design: Toward the development of low methane-emitting rice
Yusaku Uga (Institute of Crop Science, NARO)

16:00 S04-4 Exploring greenhouse gas-reducing microbes by the Citizen Science
Satoshi Ohkubo (Grad. Sch. Life Sci., Tohoku Univ.)

16:30 Discussion

PCP sponsored symposium

Circadian and Seasonal Mechanisms in Plant Development and Physiology

Date Wed., March 15, 14:00–17:00 **Venue** Room Z

Organizers: Takato Imaizumi (Dept. Biol, Univ. Washington) / Marcelo Javier Yanovsky (Fundacion Instituto Leloir)

Being adapted to 24-hour-changing worlds, various plant responses are subjected to circadian regulation. Circadian mechanisms also constitute the core of seasonal regulation. This symposium showcases how major environmental factors (light and temperature) are integrated into circadian and seasonal mechanisms to control crucial development and physiological processes at the molecular levels.

Chairperson: Takato Imaizumi

14:00 Opening remarks
Miki Matoba (Oxford Univ. Press), Takato Imaizumi

14:05 S05-1 Circadian clock regulates root hair elongation in *Arabidopsis*
Akane Kubota[1], Hikari Ikeda[1], Taiga Uchikawa[1], Takuma Shishikui[1], Nozomu Takahashi[1,2], Yohei Kondo[3], Masaaki K. Watahiki[4], Motomu Endo[1] ([1]Dev. of Bioscience, NAIST, [2]JST PRESTO, [3]ExCELLS, NINS, [4]Faculty of Sci., Hokkaido Univ.)

14:20 S05-2 The molecular mechanism of temperature compensation in Arabidopsis
Akari Maeda[1], Hiromi Matsuo[1], Yoshikatsu Matsubayashi[2], Toshinori Kinoshita[2,3], Norihito Nakamichi[1] ([1]Grad. Sch. Bio-Agric., Nagoya Univ., [2]Grad. Sch. Sci., Nagoya Univ., [3]ITbM., Nagoya Univ.)

14:35 S05-3 The spliceosome assembly machinery component pICLn ensures propper adaptation to light and temperature changes in plants
Marcelo Javier Yanovsky (Fundacion Instituto Leloir - Argentina)

15:00 S05-4 Unraveling the clock protein LWD1 complexes in circadian gene expression regulation and photoperiodic flowering control
Shu-Hsing Wu, Chun-Kai Huang (Institute of Plant and Microbial Biology, Academia Sinica, Taiwan)

15:25 Break

Chairperson: Marcelo Javier Yanovsky

15:30 S05-5 Integration of theoretical and empirical approaches on starch metabolism to unravel the adaptive mechanism for seasonal environmental change in plants
Shuichi Kudo[1], Anthony Artins[2], Carolina Bello[2], Camila Caldana[2], Akiko Satake[1] ([1]Dept. Biology., Kyushu Univ., [2]Max Planck Inst.)

15:45 S05-6 Flower induction of a rootless duckweed, *Wolffiella hyalina*: photoperiodism and plant-to-plant communication
Minako Isoda[1], Hajime Ono[2], Tokitaka Oyama[1] ([1]Grad. Sch. Sci., Kyoto Univ., [2]Grad. Sch. Agric., Kyoto Univ.)

16:00 S05-7 Translatome analysis of florigen-expressing cells revealed the presence of another flowering-inducing protein
Takato Imaizumi (Dept. Biol., Univ. Washington)

16:25 S05-8 Ambient temperature controls Ghd7 repressor activity in rice photoperiodic flowering
Takeshi Izawa (Grad. Sch. Agri. U-Tokyo)

16:50 Cloising remarks
Marcelo Javier Yanovsky

A look at the world of environmental stress through the perspective of P700 oxidation

Date Thu., March 16, 9:00–11:10 **Venue** Room X

Co-sponsored by JST-CREST (Robustness in Plants) "Development of in vivo analysis system to evaluate suppression activity of reactive oxygen species (ROS) production: Early diagnosis of oxidative stress in plants" (JPMJCR15O3)

Organizers: Yuji Suzuki (Fac. Agr., Iwate Univ.) / Chikahiro Miyake (Grad. Sch. Agr. Sci., Kobe Univ.)

Oxidation of the reaction center chlorophyll of PSI, P700, is induced by environmental stresses via robust "P700 oxidation system" and protects PSI from oxidative stress. P700 oxidation system has changed along with the evolution of photosynthetic organisms. Measurements of P700 oxidation is expected to be useful for breeding and cultivation management of crops. These aspects of P700 oxidation are presented in this session.

Chairperson: Yuji Suzuki

09:00 Opnenig remarks
Yuji Suzuki

09:05 S06-1 Physiological function of P700 oxidation in PSI and its induction mechanism
Chikahiro Miyake (Grad. Sch. Agr. Sci., Kobe Univ.)

09:30 S06-2 Chilling-induced damage and P700 oxidation in cucumber
Kentaro Ifuku[1], Ko Takeuchi[2], Yufen Che[2], Takeshi Nakano[2] ([1]Grad. Sch. Agr., Kyoto Univ., [2]Grad. Sch. Biostudies, Kyoto Univ.)

09:55 S06-3 Responses and robustness of photosystem I to low N stress in rice leaves
Ko Noguchi[1], Hiroshi Ozaki[1], Yusuke Mizokami[1], Daisuke Sugiura[2], Takayuki Sohtome[3], Chikahiro Miyake[4], Hidemitsu Sakai[5] ([1]Sch. Life Sci., Tokyo Univ. Pharm. Life Sci., [2]Grad. Sch. Bioagr. Sci., Nagoya Univ., [3]Bunkokeiki Co., Ltd., [4]Grad. Sch. Agr. Sci., Kobe Univ., [5]Inst. Agro-Environ. Sci., NARO)

Chairperson: Chikahiro Miyake

10:15 S06-4 P700 oxidation caused by environmental or endogenous stress in rice: case studies from drought stress and leaf senescence
Yuji Suzuki (Fac. Agr., Iwate Univ.)

10:40 S06-5 Evolution and diversity of photosynthetic organisms based on the strategy for P700 oxidation
Ginga Shimakawa (Sch. Biol. Environ. Sci., Kwansei-Gakuin Univ.)

11:05 Closing remarks
Amane Makino (Grad. Sch. Agr. Sci., Tohoku Univ.)

Japan-Singapore Binational Symposium: Plant Science & Precision Agriculture

Date Thu., March 16, 9:00–11:50 **Venue** Room Z

Organizers: Misato Ohtani (Univ Tokyo, Japan) / Daisuke Urano (TLL, Singapore)

Academic and industrial research has become increasingly intertwined, even where basic biological science is concerned, leading to higher expectations for research findings to be translated to real world applications. This Japan-Singapore binational symposium introduces a substantial breakthrough from the fundamental genetic discoveries to the technological advancements that can be translated into precision agriculture.

Chairperson: Misato Ohtani

09:00 Opening remarks
Nam-Hai Chua (Temasek Life Sciences Laboratory Ltd, Singapore)

09:05 S07-1 Micro, nano, and optical technologies for precision agriculture and plant science
Daisuke Urano (Temasek Life Sciences Laboratory Ltd, Singapore)

Chairperson: Daisuke Urano

09:25 S07-2 The challenge of RIKEN CSRS for the establishment of Sustainable Resource Science
Kazuki Saito (RIKEN Center for Sustainable Resource Science, Japan)

09:35 S07-3 Computational metabolomics to investigate the plant phytochemical diversity
Hiroshi Tsugawa (Tokyo University of Agriculture and Technology, Japan)

Chairperson: Misato Ohtani

09:55 S07-4 Sensor Tools for plant metabolic profiling
Rajani Sarojam (Temasek Life Sciences Laboratory Ltd, Singapore)

10:15 Break

Chairperson: Daisuke Urano

10:30 S07-5 Chemical manipulation of epigenome towards flowering control
Toshiro Ito (Nara Institute of Science and Technology, Japan)

10:50 S07-6 Effects of nitrogen on cesium allocation in rice plants (*Oryza sativa*)
Natsuko Kinoshita, Louis Irving, Barry Lustig, Jun Furukawa (University of Tsukuba, Japan)

Chairperson: Misato Ohtani

11:10 S07-7 Generation of low-arsenic and low-cadmium rice
Zhongchao Yin (Temasek Life Sciences Laboratory Ltd, Singapore)

11:30 S07-8 MEDIATOR15 positively regulates thermomorphogenesis through gibberellic acid pathway
Naohiko Ohama[1], Teck Lim Moo[1], KwiMi Chung[2], Nobutaka Mitsuda[2], Kulaporn Boonyaves[1], Daisuke Urano[1], Nam-Hai Chua[1] ([1]Temasek Life Sciences Laboratory Ltd, Singapore, [2]National Institute of Advanced Industrial Science and Technology, Japan)

Plant biology in the era of single-cell omics

Date Fri., March 17, 9:00–12:00 **Venue** Room X

Organizers: Momoko Ikeuchi (NAIST) / Yuki Kondo (Kobe Univ.)

Phenotypic characteristics of plants are most often the outcome of the population-level behavior of plant cells. Single-cell analyses are highly awaited to provide precise understandings of biological events of our interest. In this symposium, we will introduce a variety of cutting-edge single-cell technologies that produce omics data at cellular resolution. We will discuss future perspectives and potential applications of these technologies in broad areas of plant sciences.

09:00 Opening remarks
Yuki Kondo

Chairperson: Momoko Ikeuchi

09:05 S08-1 Characterization of cambium stem cells using single nuclear RNA-seq analysis identifies stem cell-specific signatures
Dongbo Shi[1,2,3,4], Jiao Zhao[1], Ayako Kawamura[2], Hatsune Morinaka[2], Akira Iwase[2,3], Satoko Yoshida[3,5], Kerstin Kaufmann[6], Keiko Sugimoto[2], Thomas Greb[1] ([1]COS, Heidelberg University, [2]RIKEN CSRS, [3]JST PRESTO, [4]IBB, University of Potsdam, [5]NAIST, [6]Humboldt-University Berlin)

09:30 S08-2 Spatio-temporal imaging of cell fate dynamics at the single cell level using luminescence microscope
Shunji Shimadzu[1,2], Yuki Kondo[2] ([1]Grad. Sch. Sci., Univ. of Tokyo, [2]Grad. Sch. Sci., Kobe Univ.)

09:50 S08-3 Evolution of shoot apical meristem revealed by single-nuclei RNA-seq on *Physcomitrium patens*
Yuki Hata[1], Nicola Hetherington[4], Kai Battenberg[3], Atsuko Hirota[3], Aki Minoda[2,4], Makoto Hayashi[3], Junko Kyozuka[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]RIKEN IMS, [3]RIKEN CSRS, [4]RIMLS Radboud Univ.)

10:10 S08-4 Symbiosis-specific chromosome remodelling in *Lotus japonicus* roots found through single-nucleus ATACseq
Kai Battenberg[1], Atsuko Hirota[1], Nicola Hetherington[2], Aki Minoda[2], Makoto Hayashi[1] ([1]CSRS, RIKEN, [2]Department of Cell Biology, Faculty of Science, Radboud Institute for Molecular, Life Sciences, Radboud University)

10:35 Break

Chairperson: Yuki Kondo

10:40 S08-5 Single cell RNA-seq approach toward understanding regulatory mechanisms of shoot regeneration
Momoko Ikeuchi (Nara Institute of Science and Technology)

11:05 S08-6 Development of a live cell RNA-seq method to link fluctuating gene networks with cellular phenotype causation
Koutarou Torii[1], Keiko Watanabe[1], Kaori Nishikawa[1], Asuka Takeishi[2], Hirofumi Shintaku[1] ([1]CPR, Wako Inst., Riken, [2]CBS, Wako Inst., Riken)

11:30 S08-7 Time-resolved single-cell gene regulatory atlas of plants under pathogen attack
Tatsuya Nobori[1], Alexander Monell[2], Travis Lee[1], Joseph Ecker[1] ([1]Salk Institute, [2]UC San Diego)

11:55 Closing remarks
Yuki Kondo

A frontier in plant sensing and receptor research

Date Fri., March 17, 13:30–16:30 **Venue** Room X

Organizers: Masanori Okamoto (Utsunomiya Univ./RIKEN) / Yusuke Saijo (NAIST)

Plants have thrived on the land by acquiring sensing mechanisms to diverse external stimuli. To elucidate the principle of environmental sensing in plants, it is necessary to uncover the molecular mechanism that enables the diversification and refinement of the environmental sensing. In this symposium, we will introduce new findings on sensing mechanisms and signal transduction of various external stimuli and discuss future perspective.

Chairperson: Yusuke Saijo

13:30 Opening remarks

13:35 S09-1 Gravity signaling mechanism in Arabidopsis gravitropism
Takeshi Nishimura[1], Yoshinori Hirano[3], Masahiko Furutani[2], Moritaka Nakamura[1], Toshio Hakoshima[4], Miyo, T. Morita[1] ([1]NIBB, [2]Kumamoto Univ., IROAST, [3]Grad. Sch. Pharma. Sci., The Univ. Tokyo, [4]NASIT)

13:55 S09-2 Electrophysiology of the mechanosensitive channels in Arabidopsis
Kenjiro Yoshimura (Col. Sys. Eng. Sci., Shibaura Inst. Technol.)

14:15 S09-3 Environmental sensing and intracellular signal transduction in stomatal guard cells
Yohei Takahashi (ITbM, Nagoya University)

14:35 S09-4 Plant Raf-like protein kinases are involved in growth regulation under drought stress
Taishi Umezawa (BASE, TUAT)

14:55 Break time

Chairperson: Masanori Okamoto

15:00 S09-5 Mechanosensory network responsible for the onset of plant immunity
Mika Nomoto[1,2,3], Yasuomi Tada[1,2] ([1]Centr. Gene Res., Nagoya Univ., [2]Grad. Sch. Sci., Nagoya Univ., [3]PRESTO, JST)

15:20 S09-6 New advances in understanding the mechanism and roles of nitrate signaling in plants
Shuichi Yanagisawa (AgTech, Graduate School of Agricultural and Life Sciences, The University of Tokyo)

15:40 S09-7 What is the biological significance of the structural diversity of strigolactones?
Shinjiro Yamaguchi, Kiyoshi Mashiguchi (Inst. Chem. Res., Kyoto Univ.)

16:00 S09-8 Modulation of damage-associated pattern recognition receptor signaling during plant adaptation to phosphate deficiency
Yusuke Saijo (Nara Institute of Science and Technology)

16:20 General discussion & Closing remarks

The 19th Database Workshop (Day 2, AM)

Language: Japanese

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

Co-sponsored by Plant Informatics Consortium

Organizer: Kentaro Yano (Sch. of Agri., Meiji Univ.)

The 18th Database Workshop will provide an overview of trends in major databases, methods for collection and utilization of online information, and the execution environment and procedures for machine learning, deep learning, and AI text mining through lectures and hands-on training sessions. Not only those who wish to take the hands-on training but also those who attend only the lecture are welcome.

Chairperson: Kentaro Yano

09:00 D01-1 Gene screening with NGS data and knowledge-based information
Kentaro Yano (Bioinformatics, Sch. Agri., Meiji Univ.)

09:45 D01-2 Introduction to AI Information and Automated Machine Learning (AutoML) for Experimental Researchers
Kaminuma Eli (Nagoya City Univ.)

10:40 D01-3 We also wanna share good luck with AI!!: Application of AI-guided intuition on genomes, molecules, and image data
Takashi Akagi[1,2], Eriko Kuwada[1] ([1]Grad Sch Environ Life Sci, Okayama University, [2]JST-PRESTO)

11:50 Closing remarks
Kentaro Yano

GeneBay, Inc. Luncheon Seminar
“Genome and transcriptome analysis by nanopore sequencing”

Date Wed., March 15, 12:45–13:45 **Venue** Room X

Speaker: Yasuo Uemura (GeneBay, Inc.)

Nanopore sequencers are state-of-the-art next generation sequencers that can read nucleotide sequences by monitoring changes to an electrical current as nucleic acids are passed through a protein nanopore. Nanopore sequencers have made remarkable progress in recent years and are now widely used not only for genome analysis of higher organisms, but also for transcriptome and epigenome analysis. In this seminar, we will present examples of genomic, transcriptomic, and methylation analysis using human or plant samples and discuss the current capabilities and accuracy of the nanopore sequencing analysis.

PCP Luncheon Seminar
"Publishing Success with Plant & Cell Physiology"

Date Wed., March 15, 12:45–13:45 **Venue** Room: Z

Speakers: Wataru Sakamoto (Editor-in-Chief), Liliana Costa (Managing Editor)

Publishing articles is a key component of research and development, allowing a widespread dissemination of knowledge that paves the way for scientific advancement within multiple disciplines. As well as informing the audience about the latest journal updates, this seminar also serves to provide deeper insight for authors about publishing their research – offering tips for publishing success at all stages of the process: pre-submission, submission, and post-acceptance. The session will close with a reflection on recent PCP papers which have drawn public attention through press releases, and an open discussion with some of the PCP Editors.

Seminar outline:

1. Journal updates and new developments
2. Tips for publishing success with PCP
3. Q & A — the audience will be given the opportunity to ask questions to the PCP Editors and editorial staff at the end of the seminar

Evident Corporation Luncheon Seminar
“Elucidating dynamics of reproductive events in flowering plants”

Date Thu., March 16, 12:15–13:15 **Venue** Room X

Speaker: Daisuke Maruyama, Ph.D. (Kihara Institute for Biological Research, Yokohama City University)

Sponsor: Evident Corporation

Luncheon Seminar
"An Encouragement of Studying/Working Abroad"

Date Thu, March 16, 12:15–13:15 **Venue** Room Z

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

Panelists: Chihiro Furumizu (Hiroshima University)
Takashi Hamaji (The Donald Danforth Plant Science Center, Saint Louis, USA)
Michitaka Notaguchi (Nagoya University)
Natsuki Omae (Huazhong Agricultural University, Wuhan, China)
Mizuki Takenaka (Kyoto University)
Kanade Tatsumi (CNRS, University of Strasbourg, Strasbourg, France)

Increasing the equity, diversity, and inclusion of the JSPP and the Japanese academic community is of critical importance. The JSPP International Committee aims to strengthen the international research competitiveness of our research community by, for instance, increasing the number of researchers who have studied/worked abroad. Fortunately, many researchers and students seem to be interested in studying abroad; however, they also face some risks and uncertainties triggered by the need for actual knowledge about the reality of studying abroad. In this luncheon seminar, we gather feedback from the researchers/ students who have studied abroad to aid those willing to consider their career options outside of Japan. The seminar will consist of flash talks, followed by a panel discussion where we try to address questions from the audience.

Seminar on Gender Equality

"How we should hire and get hired: from large-scale survey data to think our field of research"

Date Fri., March 17, 12:15–13:15 **Venue** Room X

Speaker: Dr. Yuki Sudo (Professor, Okayama University / The Biophysical Society of Japan)

At this year's seminar, as a topic of the luncheon seminar on gender equality, we will pick up the current status and issues of employment in the field of science and technology in Japan, based on the results of "5th Large-Scale Survey of Actual Conditions of Gender Equality in Scientific and Technological Professions" conducted from October 20 to November 30, 2021. In the seminar, Dr. Yuki Sudo, who was in charge of analyzing the results of this survey, will give a talk on the analysis results. In particular, we would like to discuss how "Termination of Employment Doctrine" has affected our field of research and the gender gap, and how we should respond to it from each point of view. We welcome your comments on what we can do and what we should do for our future research field of Plant Physiology where young researchers, women, and senior researchers can actively work.

*Lunch will be provided for the first 100 participants. Advance registration is not required.

The 25th Plant Organelle Workshop —the structure and dynamism of plant organelles—

Date Tue., March 14, 13:00–18:50 **Venue** Room Z (hybrid)

Organizers (*in alphabetical order*)**:** Hiroyuki Ishida (Tohoku University) / Masanori Izumi (RIKEN) / Yusuke Kato (Setsunan University) / Kensuke Kusumi (Kyushu University) / Yoshiki Nishimura (Kyoto University) / Junichi Obokata (Setsunan University) / Atsushi Takabayashi (Hokkaido University) / Tomohiro Uemura (Ochanomizu University) / Masaya Yamamoto (Tohoku University)

Cellular organelles play an important role in plant development, function, homeostasis, and environmental adaptation. This workshop aims to provide an opportunity for researchers from diverse fields to meet, exchange and discuss the latest findings, ideas, and related technologies on plant organelles. Participation for this workshop is free of charge. The registration at our website is encouraged.

13:00 Opening remarks

Session 1

13:05 Analysis of a phototropin signal transduction pathway in chloroplast movement
Noriyuki Suetsugu (The University of Tokyo)

13:45 Insights into the mechanism of the plastid division ring
Yamato Yoshida (The University of Tokyo)

14:25 Break

14:35 Visualizing and manipulating chloroplasts
Yutaka Kodama (Utsunomiya Univ.)

15:15 Functions of the nuclear lamina regulating nuclear morphology in plants
Yuki Sakamoto (Osaka University)

15:55 Break

Session 2

16:05 Live-cell imaging of the intracellular dynamics in plant zygotes
Minako Ueda (Tohoku University)

16:45 Membrane traffic between the endoplasmic reticulum and Golgi apparatus in plants.
Junpei Takagi[1], Tomoo Shimada[2], Ikuko Hara-Nishimura[3] ([1]Hokkaido University, [2]Kyoto University, [3]Konan University)

17:25 Break

Keynote lecture

17:40 Towards a unified model of membrane traffic
Akihiko Nakano (RIKEN)

18:40 General discussion

18:50 Closing remarks

This workshop is open to all interested participants, but online registration in advance is encouraged. (http://www.rib.okayama-u.ac.jp/OWS/).

Contact address: Yoshiki Nishimura: yoshiki@pmg.bot.kyoto-u.ac.jp
Yusuke Kato: yusuke.kato@setsunan.ac.jp

2nd Symposium on Phototropic Prokaryotes

Date Tue., March 14, 13:30–18:00 (Reception: 12:30–) **Venue** Room Y

Organizers: Jiro Harada (Kurume Univ. Sch. Med.) / Yusuke Tsukatani (JAMSTEC) / Chihiro Azai (Ritsumeikan Univ.)

Phototropic prokaryotes such as cyanobacteria and anoxygenic photosynthetic bacteria are now subjects for various fields of studies including biochemistry, molecular biology, structural biology, biophysics, bioorganic chemistry, and microbial ecology. This symposium invites speakers talking their latest achievements and provides new insights into studies on photosynthetic microorganisms including chloroplasts through discussion.

Entry form: https://forms.gle/7SVKNj15xRrAJbzo6

(**Deadline:** Fri., March 10)

Chairperson: Chihiro Azai

13:30 Opening remarks
Yusuke Tsukatani

13:35 Discovery of a phototrophic *Chloroflexota* member using a Type I reaction center sheds new light on the evolution and ecology of photosynthesis
Jackson M. Tsuji (The Institute of Low Temperature Science, Hokkaido University)

14:05 Origin and evolution of photosynthesis unraveled from genome analysis of prokaryotes
Arisa Nishihara[1], Yusuke Tsukatani[2], Chihiro Azai[3], Masaru K. Nobu[4] [[1]Japan Collection of Microorganisms, RIKEN BioResource Research Center; [2]Japan Agency for Marine-Earth Science and Technology (JAMSTEC); [3]Graduate School of Life Sciences, Ritsumeikan University; [4]National Institute of Advanced Industrial Science and Technology (AIST)]

14:35 Evolution of cyanobacteria and ancient biogeochemistry inferred from ancestral protein resurrection
Mariko Harada (Faculty of Life and Environmental Sciences, University of Tsukuba)

15:05 Coffee break

15:30 Molecular fossils of prokaryotic photosynthetic organisms and their distribution in earth history
Ryosuke Saito (Department of Geosphere Sciences, Yamaguchi University)

16:00 Development of expression vectors in cyanobacteria and establishment of useful substances production systems using these vectors
Yutaka Sakamaki, Satoru Watanabe (Department of Bioscience, Tokyo University of Agriculture)

16:30 Fluorescence spectroscopy under a microscope: intracellular photosynthetic analysis and single-particle spectroscopy
Yutaka Shibata (Chemistry Department, Graduate School of Science, Tohoku University)

17:00 Discussion
Jiro Harada

18:00 Banquet

Phytohormones analysis workshop

Date Tue., March 14, 14:30–17:00 **Venue** Room X

Organizers: Masashi Asahina (Dept. Bisci., Teikyo University) / Izumi Mori (IPSR, Okayama University)

Phytohormones are a group of compounds that have important roles in many aspects of the life cycle. They are known to act at extremely low concentrations, less than a few ng~pg/mg DW. This workshop aims to introduce analytical techniques and fascinating research related to phytohormone analysis and provide an opportunity to discuss the technical basis, methodology, and development of phytohormone research.

14:30 Opening remarks
Masashi Asahina

14:31 Spatiotemporal plant hormone analysis using laser microdissection
Masashi Asahina (Dept. Bisci., Teikyo University)

14:45 Quantitative analyses of brassinosteroids and strigolactones
Takahito Nomura (Ctr. Biosci. Res. Educ., Utsunomiya University)

15:10 Have anyone seen cell-to-cell movement of auxins?
Yuichiro Tsuchiya (ITbM, Nagoya University)

15:35 Quantitative plant hormone analysis platform at Okayama University
Izumi Mori (IPSR, Okayama University)

15:45 Mechanism of gall formation: a hint from plant hormone analysis
Tomoko Hirano (Grad. Sch. Life and Envir. Sci., Kyoto Prefectural University)
(online presentation)

16:10 Evolutionary diversity in the contribution of plant hormones to sex determination in plants
Takashi Akagi (Grad. Sch. Environ. Life Sci., Okayama University)

16:35 General discussion

16:55 Closing remarks
Izumi Mori

Affiliated meeting: Japanese Society for Young Plant Physiologists

Date Tue., March 14, 18:00–20:00 **Venue** Room X

Organizers: Konan Ishida / Rikako Hirata / Senri Yamamoto

At this year's event, under the theme 'What I have learnt from careers that seem straight and those that seem to take a diversion', lectures are planned to focus on the diversity of careers as a researcher. The speakers will be Masayuki Fujiwara (Yanmar Holdings Co). and Naoko Yoshinaga (Kyoto University), who will deliver messages to young researchers based on their own experiences.

Chairperson: Rikako Hirata

18:00	Opening remarks
18:15	Caterpillers first, or daughters first? Naoko Yoshinaga (Grad. Sch Agric., Kyoto Univ.)
18:50	Biotech Research for Agricultural Equipment Manufacturers. Masayuki Fujiwara (Yanmar Holdings Co.)
19:25	Closing remarks

*An onsite social gathering is planned afterwards. If you wish to attend, please check the announcement from the website and SNS account of Japanese Society for Young Plant Physiologists and register in advance.

15th Plant Membrane Symposium

Date Fri., March 17, 15:00–16:30 **Venue** Room G

Organizers: Maki Katsuhara (IPSR, Okayama University) / Izumi Mori (IPSR, Okayama University)

In this meeting "Plant Membrane Symposium" series, we have symposia on plant membrane function and membrane transport mechanisms. This year, PCP editor, Dr. Tzyy-Jen CHIOU of Academia Sinica, Taiwan, will introduce the current status and prospects of phosphate transport system. Then, Professor Emeritus Tetsuro MIMURA of Kobe University, who has made significant contributions to research on plant membrane transport, will present a summary of his research results over the past 40 years.

Chairperson: Maki Katsuhara

15:00 Opening remarks
Maki Katsuhara

15:05 Regulation of vacuolar phosphate transporters and their impact on plant immunity
Tzyy-Jen CHIOU (Academia Sinica, Taiwan)

15:45 Forty years began with plant electrophysiology
Tetsuro Mimura (Col. Biosci. Biotech., National Cheng Kung Univ., Taiwan)

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.

- Please don't use the presenter view to avoid screen-sharing troubles.

For online presenters

- ~~Your connection to the Zoom webinar will be tested in advance. We will contact you with the details such as the date, time and method.~~
  Connection test is not offered in this meeting.

- The presenter will participate in the webinar as a panelist. 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.

- Please enter the webinar via the special link for a panelist, which will be provided by the Organizing Committee in advance.

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

● Day 1, Wed., March 15, AM (9:30–12:30)

Time	Room A	Room B	Room C	Room D	Room E
	Photosynthesis	Membrane trafficking	Genome function/ gene regulation	Environmental response A/ Physiological responses	Plant hormones/ Signaling molecules
09:30	1aA01 The strategy to harvest far-red light in the filamentous green alga *Phaeophila*, a symbiosis inside coral skeletons Chieko Onami, Tohru Tsuchiya, Hideaki Miyashita (Grad. Sch. Hum. and Environ. Studs., Univ. Kyoto)	1aB01 Subcellular localization of NHX5/6 in Salt stress response Yuzuki Inoue[1], Yutaro Shimizu[2], Emi Ito[3], Akihiko Nakano[2], Tomohiro Uemura[1] ([1]Grad. Sch. Humanities and Sciences., Ochanomizu Univ., [2]Live Cell Super-Resolution Imaging Research Team, RIKEN Center for Advanced Photonics., [3]IHLS., Ochanomizu Univ.)	1aC01 DNA Topoisomerase 1 is involved in synchronous chromatin condensation during the spermatogenesis of *Physcomitrium patens* Nan Gu[1,2], Yosuke Tamada[1,2,3] ([1]Sch. Eng., Utsunomiya Univ., [2]REAL, Utsunomiya Univ., [3]CORE, Utsunomiya Univ.)	1aD01 Simultaneous enhancement of iron deficiency tolerance and iron accumulation in rice by combined introduction of *OsHRZ* knockdown and engineered ferric-chelate reductase Takanori Kobayashi, Keisuke Maeda, Yutaro Suzuki, Naoko K. Nishizawa (Res. Inst. Biores. Biotech., Ishikawa Pref. Univ.)	1aE01 Functional analysis of *CLE1−7* using septuple knock-out mutant Taiki Kajiwara[1], Satoru Nakagami[2], Shinichiro Sawa[3] ([1]Grad. Sch. Sci. Tech., Univ. Kumamoto, [2]HZAU, [3]Fac. Adv. Sci. Tech. IRCAB., Univ. Kumamoto)
09:45	1aA02 Cryo-EM structure of light-harvesting complex II from marine green macroalga *Codium fragile* Soichiro Seki[1], Tetsuko Nakaniwa[2], Pablo Castro-Hartmann[3], Kasim Sader[3], Qian Pu[3], Akihiro Kawamoto[2,4], Hideaki Tanaka[2,4], Genji Kurisu[2,4], Ritsuko Fujii[1,5,6] ([1]Grad. Sch. Sci., Osaka City Univ., [2]Institute for Protein Res., Osaka Univ., [3]Materials and Structural Analysis, Thermo Fischer Scientific., [4]OTRI, Osaka Univ., [5]Grad. Sch. Sci., Osaka Metropolitan Univ., [6]ReCAP, Osaka Metropolitan Univ.)	1aB02 Analysis of RABH1 GTPase in *Arabidopsis thaliana* Chihiro Ohori[1], Haruka Iwashita[2], Yoko Ito[3], Emi Ito[3], Akihiko Nakano[4], Takashi Ueda[5,6], Tomohiro Uemura[1,2] ([1]Grad. Sch. Humanities and Sciences., Ochanomizu Univ., [2]Faculty of Science, Ochanomizu Univ., [3]IHLS., 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.)	1aC02 Disruption of carotenoid biosynthesis pathway genes to establish local genetic manipulation through infrared laser irradiation in *Physcomitrium patens* Chizuru Numata[1], Mana Nakamura[1], Takumi Tomoi[2,3], Yuka Yoshida[1], Ikumi Kajikawa[3], Joe Sakamoto[4], Yasuhiro Kamei[5,6], Yosuke Tamada[1,3,6,7] ([1]Grad Sch Reg Dev Creat, Utsunomiya Univ, [2]Ctr. Innov. Spt., Utsunomiya Univ., [3]Sch. Eng., Utsunomiya Univ., [4]Biophotonics, ExCELLS, [5]TSB Ctr., NIBB, [6]CORE, Utsunomiya Univ., [7]REAL, Utsunomiya Univ.)	1aD02 OsbHLH064 transcription factors is related to intracellular iron homeostasis in rice Haruka Shinkawa[1], Taichi Shioya[1,2], Akari Murota[1], Takanori Kobayashi[1] ([1]Res. Inst. Biores. Biotech., Ishikawa Pref. Univ., [2]Grad. Sch. Bioagri. Sci., Nagoya Univ.)	1aE02 Long-distance translocation of the CLE2 peptide and its positive effect on the root sucrose status Satoru Okamoto[1], Azusa Kawasaki[1], Yumiko Makino[2], Takashi Ishida[3,4], Shinichiro Sawa[4] ([1]Grad. Sch. Sci and Tech., Univ. Niigata, [2]NIBB, [3]IROAST, Univ. Kumamoto, [4]Grad. Sch. Sci and Tech., Univ. Kumamoto)
10:00	1aA03 Wavelength-Dependent Optical Response of Single Photosynthetic Antenna Complexes from Siphonous Macrogreen Alga *Codium fragile* Tatas H. P. Brotosudarmo[1], Bernd Wittmann[1], Soichiro Seki[2], Ritsuko Fujii[2,3], Jürgen Köhler[1] ([1]Spectrosc. Soft Matter, Univ. Bayreuth, Germany, [2]Grad. Sch. Sci., Osaka City Univ., [3]ReCAP., Osaka Metropolitan Univ.)	1aB03 Analysis of intracellular localization of *Arabidopsis thaliana* VAMP714 Tomoko Eguchi[1], Sae Endo[1], Emi Ito[2], Akihiko Nakano[3], Tomohiro Uemura[1] ([1]Grad. Sch. Humanities and Sciences., Ochanomizu Univ., [2]IHLS., Ochanomizu Univ., [3]Live Cell Super-Resolution Imaging Research Team, RIKEN Center for Advanced Photonics.)	1aC03 The nuclear pore complex is a novel factor involved in the two-step regulation of centromere distribution in *Arabidopsis thaliana* Nanami Ito[1], Takuya Sakamoto[2], Yuki Sakamoto[3], Sachihiro Matsunaga[1] ([1]Dept. of Integr. Biosci., Grad. Sch. of Front. Sci., Univ. of Tokyo, [2]Dept. of Appl. Biol. Sci., Fac. of Sci. and Tech., Tokyo Univ. of Sci., [3]Dept. of Biol. Sci., Grad. Sch. of Sci., Osaka Univ.)	1aD03 The *Arabidopsis thaliana* ATP Binding Cassette Subfamily G Protein 36 (AtABCG36) Is Not a Functional Cadmium Exporter Keita Ito[1], Yuhi Ino[2], Takashi Akihiro[3], Keitaro Tanoi[4], Abidur Rahman[1,2] ([1]United Grad. Sch. Agri Sci., Iwate Univ., [2]Dept. Plant Bio Sci., Fac. Ag., Iwate Univ., [3]Life and Env Sci., Shimane Univ., [4]Grad. Sch. Agri and Life Sci., Univ. Tokyo)	1aE03 Peptide ligand-mediated trade-off between plant growth and stress response Mari Ogawa-Ohnishi, Tomohide Yamashita, Mitsuru Kakita, Takuya Nakayama, Yuri Ohkubo, Yoko Hayashi, Yasuko Yamashita, Taizo Nomura, Saki Noda, Hidefumi Shinohara, Yoshikatsu Matsubayashi (Grad. Sci., Univ. Nagoya)
10:15	1aA04 Photosynthetic properties of the *lhcx1* knock-out mutant of *Chaetoceros gracilis* lacking energy-dependent NPQ Minoru Kumazawa[1], Noriko Ishikawa[1], Shoko Tsuji[1], Natsuko Inoue-Kashino[2], Yasuhiro Kashino[2], Kentaro Ifuku[1] ([1]Grad. Sch. Agri., Kyoto Univ., [2]Grad. Sch. Sci., Univ. Hyogo)	1aB04 Phosphorylation/Dephosphorylation-mediated Regulation of the Polar Localization of a Borate Transporter BOR1 Keita Muro[1], Rintaro Yoshida[2], Yudai Shimizu[3], Keisuke Ohashi[4], Yuka Ogino[4], Koji Kasai[5], Chiaki Hori[6], Taichi Takasuka[4], Toru Fujiwara[5], Junpei Takano[1] ([1]Grad. Sch. Agr., Osaka Metropolitan Univ., [2]Col. Life Environ. Sci., Osaka Pref. Univ., [3]Grad. Sch. Life Environ. Sci., Osaka Pref. Univ., [4]Grad. Sch. Agri., Hokkaido Univ., [5]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [6]Grad. Sch. Environ. Sci., Hokkaido Univ.)	1aC04 Functional analysis of chromatin remodeling factors involved in the acquisition of plant regenerative capacity Ayaka Horie[1], Takuya Sakamoto[2], Mariana Diaz[3], Yayoi Inui[1], Daniel Slane[1], Hikaru Sato[1], Yutaka Suzuki[4], Sachihiro Matsunaga[1] ([1]Dept. Integr. Biosci., Grad. Sch. Front. Sci., Univ. Tokyo, [2]Dept. Appl. Biol. Sci., Fac. Sci. Tech., Tokyo Univ. Sci, [3]IPMB, Univ. Zurich, [4]Dept. Comput. Biol. Med. Sci., Grad. Sch. Front. Sci., Univ. Tokyo)	1aD04 The role of MYBCC-SPX module in phosphate response of nonvascular plant *Marchantia polymorpha* Hinatamaru Fukumura[1], Ginga Kitaura[1], Hirotaka Kato[1,2], Yuuki Sakai[1], Yuki Kondo[1], Hidehiro Fukaki[1], Tetsuro Mimura[1,3,4], Kimitsune Ishizaki[1] ([1]Grad. Sch. Sci. Kobe Univ., [2]Grad. Sch. Sci. Eng., Ehime Univ., [3]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [4]Col. Biosci. Biotech., National Cheng Kung Univ.)	1aE04 Localization of jasmonate and its function in the regulation of tomato fruit set Yukako Nomura[1], Yu Lu[2], Hirofumi Enomoto[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]Dept. Biosci., Univ. Teikyo, [4]Advanced Analysis Center., NARO, [5]CSRS., RIKEN, [6]Grad. Sch. Bioagric Sci., Univ. Nagoya, [7]T-PIRC., Univ. Tsukuba)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/Morphogenesis	Photoreceptors/ Photoresponses	Systems biology				
1aF01 The cooperation of chloroplast DHAR3 and glutathione determines the capacity for ascorbate accumulation under photooxidative stress Akane Hamada, Takahisa Ogawa, Takahiro Ishikawa, Takanori Maruta (Grad. Sch. Nat. Sci. Technol., Shimane Univ.)	1aG01 Molecular mechanism underlying differentiation of epidermis that is composed of heterogenous cell types Kenji Nagata[1], Taku Takahashi[2], Mitsutomo Abe[1] ([1]Grad. Sch. Arts and Sciences, Univ. Tokyo, [2]Grad. Sch. Sci., Okayama Univ.)	1aH01 A photoreceptor gene involved in asexual reproduction of *Pediastrum duplex* Akari Masaki[1,2], Tomohiro Suzuki[1,2], Tomoko Shinomura[3], Yutaka Kodama[1,2] ([1]Ctr. Biosci. Res. Educ., Utsunomiya Univ, [2]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ, [3]Fac. Sci. Eng., Teikyo Univ)	1aI01 Linking genotypes and phenotypes in the light of convergent evolution Kenji Fukushima (Univ Wuerzburg)	Symposium S01 Exploratory genomic evolutions and reproductive adaptations in plants (9:30–12:30)	Symposium S02 Plant Strategies for Survival Revealed from Regulatory System of Resource Allocation (9:30–12:30)	Symposium S03 Current development of genome editing: From various novel tools to potential applications (9:30–12:30)	09:30
1aF02 The chloroplast GS/GOGAT cycle drives oxidative stress response in catalase-deficient mutants Kana Ishibashi[1], Takanori Maruta[1,2], Amna Mhamdi[2], Frank Van Breusegem[2] ([1]Nat. Sci. Technol., Shimane Univ., [2]Plant Systems Biol., VIB-Ghent Univ.)	1aG02 Control of *ATML1* activity during epidermal cell differentiation Shinobu Takada[1], Gerd Jürgens[2], Hiroyuki Iida[3] ([1]Dept. Biol. Sci., Grad. Sch. Sci., Osaka Univ, [2]ZMBP, University of Tübingen, [3]Institute of Biotechnology, HiLIFE, University of Helsinki)	1aH02 Role of phytochrome B in inflorescence stem Takuto Kudo, Mayu Nakagawa (Ishinomaki Senshu Univ.)	1aI02 Improving the Reliability of QTL Detection in Rice by Effective Use of Legacy Data for GWAS Mao Suganami[1], Soichi Kojima[2], Wang Fanmiao[3], Hideki Yoshida[1], Kotaro Miura[4], Yoichi Morinaka[4], Masao Watanabe[5], Eiji Yamamoto[6], Makoto Matsuoka[1] ([1]Faculty of Food and Agricultural Sciences, Institute of Fermentation Sciences, Fukushima University, [2]Graduate School of Agricultural Science, Tohoku University, [3]Bioscience and Biotechnology Center, Nagoya University, [4]Faculty of Bioscience and Biotechnology, Fukui Prefectural University, [5]Graduate School of Life Sciences, Tohoku University, [6]Graduate School of Agriculture, Meiji University)				09:45
1aF03 The liverwort *Marchantia polymorpha* lacks a light regulation mechanism for ascorbate biosynthesis Tetsuya Ishida[1], Haruka Kaji[2], Yasuhiro Tanaka[3], Takahisa Ogawa[1,2,3], Takanori Maruta[1,2,3], Shigeru Shigeoka[4], Takahiro Ishikawa[1,2,3] ([1]Grad. Sci. Nat. Sci. Technol., Shimane Univ., [2]Facu. Life. Environ. Sci., Shimane Univ., [3]Uni. Grad. Sch. Agricul. Sci., Tottori Univ., [4]Exp. Farm, Kindai Univ.)	1aG03 Condensation and decondensation of NPH3-like proteins in the control of polar auxin transport Xiaomin Song[1], Yi Yang[1], Shinichiro Sawa[2], Masahiko Furutani[2,3] ([1]Life Sciences, FAFU, [2]IRCAEB, Kumamoto Univ., [3]IROAST, Kumamoto Univ.)	1aH03 Effects of UV-B stress on flowering in Arabidopsis thaliana Ami Takahashi, Yuki Takahashi, Jun Hidema, Mika Teranishi (Grad. Sch. Life Sci., Tohoku univ.)	1aI03 Comparative analysis of plant and animal promoter elements Kyonoshin Maruyama[1,2], Tetsuya Sakurai[3], Yoshiharu Y. Yamamoto[4], Nobutaka Mitsuda[5], Shingo Sakamoto[5] ([1]JIRCAS, [2]Univ. Tsukuba, [3]Multi. Sci. Cluster, Kochi Univ., [4]Fac Appl Biol Sci, Gifu Univ, [5]AIST, Bioprod)				10:00
1aF04 Initial cellular responses and long-term effects of atmospheric low-temperature plasma irradiation on *Marchantia polymorpha* Shoko Tsuboyama[1], Takamasa Okumura[2], Kazunori Koga[2,3], Masaharu Shiratani[2], Kazuyuki Kuchitsu[1] ([1]Dept. Appl. Biol. Sci., Tokyo Univ. of Sci., [2]ISEE, Kyushu Univ., [3]NINS)	1aG04 Functional analysis of acidic loop in polar localization of DPK1 Akira Yoshinari[1,2], Emi Mishiro-Sato[1], Keiko Kano[1], Keiko Kuwata[1], Wolf B. Frommer[1,3,4], Masayoshi Nakamura[1] ([1]WPI-ITbM, Nagoya Univ., [2]IAR, Nagoya Univ., [3]Heinrich Heine Univ., [4]Max Planck Institute for Plant Breeding Research)	1aH04 Regulation mechanism of light-induced gene expression and subcellular localization of photolyase in *M. polymorpha* L. Takahiro Nii, Yuga Ogawa, Chikako Mitsuoka, Mika Teranishi, Jun Hidema (Grad. Sch. Life Sci., Tohoku Univ.)	1aI04 A Sea Slug, *Plakobranchus ocellatus,* Uses Non-self Functional Chloroplast Without Horizontal Gene Transfer Taro Maeda[1], Masaru Mori[1], Atsushi J. Nagano[1,2] ([1]IAB, Keio Univ., [2]Fac. Agric., Ryukoku Univ.)				10:15

● Day 1, Wed., March 15, AM (9:30–12:30)

Time	Room A	Room B	Room C	Room D	Room E
	Photosynthesis	Membrane trafficking	Genome function/ gene regulation	Environmental response A/ Physiological responses	Plant hormones/ Signaling molecules
10:30	1aA05 Light harvesting mechanism of the smallest type-I reaction center of green sulfur bacteria: mutational modifications and theoretical analysis Chihiro Azai[1], Hirozo Oh-oka[2], Shigeru Itoh[3], Hirotaka Kito[4], Akihiro Kimura[3] ([1]Dept. Bioinf., Ritsumeikan Univ., [2]Grad. Sch. Sci., Osaka Univ., [3]Grad. Sch. Sci., Nagoya Univ., [4]Fac. Sci. and Engi., Kindai Univ.)	1aB05 The role of the plant secretion system in the pathogen responses Sae Endo[1], Aimi Taura[2], Takashi Yaeno[3], Emi Ito[4], Yoko Ito[4], Akihiko Nakano[5], Tomohiro Uemura[1] ([1]Grad. Sch. Humanities and Sciences., Ochanomizu Univ., [2]Faculty of Science, Ochanomizu Univ., [3]Department of Agriculture, Ehime Univ., [4]IHLS., Ochanomizu Univ., [5]Live Cell Super-Resolution Imaging Research Team, RIKEN Center for Advanced Photonics)	1aC05 Evaluation for the impact of histone H2B acetylation on DNA-histone association using plant nucleosome reconstruction Minoru Ueda[1,2], Masatoshi Wakamori[3], Mitsumasa Takenaga[4], Junko Ishida[1,2], Tetsushi Sakuma[4], Takashi Yamamoto[4], Takashi Umehara[3], Motoaki Seki[1,2,5] ([1]Plant Genomic Network Research Team, RIKEN CSRS, [2]Plant Epigenome Regulation Lab., RIKEN CPR, [3]Laboratory for Epigenetics Drug Discovery, RIKEN BDR, [4]Molecular Genetics Lab., Hiroshima Univ., [5]KIBR, Yokohama City Univ)	1aD05 Chlorophagy is suppressed in a mutant of plastid exonuclease DPD1 Yushi Yoshitake, Kohki Yoshimoto (Sch. agri., Univ. Meiji)	1aE05 Functional Analysis of OsJAZ2 and OsJAZ5, Which Function in Downstream Signaling of the Main Jasmonate Receptor OsCOI2 in Rice Hideo Inagaki[1], Momoka Ikeda[2], Emi Yumoto[3], Kengo Hayashi[4], Yousuke Takaoka[4], Minoru Ueda[4,5], Koji Miyamoto[1,2] ([1]Grad. Sch. Sci &Eng., Teikyo Univ., [2]Dept. Biosci., Teikyo Univ., [3]Adv. Instrum. Anal. Cent., Teikyo Univ., [4]Grad. Sch. Sci., Tohoku Univ., [5]Grad. Sch. Life Sci., Tohoku Univ.)
10:45	1aA06 Light harvesting mechanisms of plant and bacterial type-I reaction centers Shigeru Itoh[1], Akihiro Kimura[1], Hirotaka Kito[2] ([1]Nagoya Univ. Grad Sch Science Physics, [2]Kindai Univ. Science-engineering)	1aB06 Analysis of PICALM2 and pollen-specific VAMP72 members in Arabidopsis Kazuo Ebine[1,2], Masaru Fujimoto[3], Keita Muro[4], Hidenori Takeuchi[5], Akira Nozawa[6], Tatsuya Sawasaki[6], Tetsuya Higashiyama[7], Takashi Ueda[1,2] ([1]Div. Cellular Dynamics, NIBB, [2]Sch. Life Sci., 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. Sci., The Univ. Tokyo)	1aC06 E Fluctuation in nitrate availability impacts chromatin profile of cytokinin biosynthesis genes Fanny Bellegarde, Olivia Tjahjono, Hitoshi Sakakibara (Graduate School of Bioagricultural Sciences, Nagoya University)	1aD06 [Cancelled]	1aE06 Chemical genetic analysis of jasmonate signaling by COI1-JAZ9 selective agonist, a stereoisomer of coronatine Kengo Hayashi[1], Nobuki Kato[1], Khurram Bashir[2,3], Haruna Nomoto[1], Misuzu Nakayama[1], Andrea Chini[4], Satoshi Takahashi[2], Hiroaki Saito[5], Raku Watanabe[6], Yousuke Takaoka[1], Maho Tanaka[2], Atsushi J. Nagano[7,8], Motoaki Seki[2], Roberto Solano[4], Minoru Ueda[1,6] ([1]Grad. Sch. Sci., Tohoku Univ., [2]RIKEN, CSRS, [3]LUMS, [4]CNB-CSIC, [5]Faculty of Pharmaceutical Sci., Hokuriku Univ., [6]Grad. Sch. Life Sci., Tohoku Univ., [7]Faculty of Agriculture, Ryukoku Univ., [8]Institute for Advanced Bioscuences, Keio Univ.)
11:00	1aA07 Analysis of intracellular polysulfide dynamics related to transcriptional regulation of sulfide-dependent photosynthesis Takayuki Shimizu[1], Tomoaki Ida[2], Giuliano T. Antelo[3], Yuta Ihara[4], Shinji Masuda[4], David P. Giedroc[3], Takaaki Akaike[2], Daiana Capdevila[3], Tatsuru Masuda[1] ([1]Grad. Sch. Arts and Sci., Univ. Tokyo, [2]Dep. Environ. Medi. and Mol. Toxicol., Tohoku Univ., [3]Dep. Chem., Indiana Univ., [4]Dept. Life Sci. and Technol., Tokyo Inst. Technol.)	1aB07 Generation and characterization of knock-out mutant of *BEN2/VPS45* encoding a TGN-localized Sec1-Munc18 component in *Arabidopsis thaliana* Kosuke Ogita, Hirokazu Tanaka (Grad. Agri., Univ. Meiji)	1aC07 E Epigenetic-driven synergistic and antagonistic regulation on transposable elements carried out by HDA6 and LDL1/2 Jo-Wei Allison Hsieh[1,2], Ming-Ren Yen[1], Fu-Yu Hung[3], Keqiang Wu[3], Pao-Yang Chen[1,2] ([1]Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, [2]Genome and Systems Biology Degree Program, Academia Sinica and National Taiwan University, Taipei, Taiwan, [3]Institute of Plant Biology, National Taiwan University, Taipei, Taiwan)	1aD07 Comparative analysis of large-scale field-omics of soybean and komatsuna *(Brassica rapa* var. *perviridis)* dataset Nao Okuma[1], Kie Kumaishi[1], Atsushi Fukushima[2,3], Natsuko I. Kobayashi[4], Shoichiro Hamamoto[4], Miyako Kusano[5], Megumi Narukawa[1], Yasuhiro Date[6], Keitaro Tanoi[4], Naoto Nihei[7], Yasunori Ichihashi[1] ([1]RIKEN BRC, [2]Grad. Sch. Life and Environ. Sci., Kyoto Pref. Univ., [3]RIKEN CSRS, [4]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [5]Sch. Life Environ. Sci., Univ. Tsukuba, [6]NARO, [7]Fac. Food Agri. Sci., Fukushima Univ.)	1aE07 Development of peptide-based chemical tools that regulate complex signaling of the plant hormone jasmonate Yousuke Takaoka[1], Ruiqi Liu[1], Qi Li[1], Kaho Suzuki[1], Minoru Ueda[1,2] ([1]Grad. Sci., Tohoku Univ., [2]Grad. Life Sciences, Tohoku Univ.)
11:15	1aA08 Sulfur-Dependent Photoinhibition in Anaerobic Culture of Green Sulfur Bacteria Masahiko Higashiguchi, Kazuki Terauchi, Chihiro Azai (Graduate School of Life Sciences, Ritsumeikan University)	1aB08 E Analysis of a novel *trans*-Golgi/TGN-localized protein family in *Arabidopsis thaliana* Natalia Julia Rzepecka[1], Emi Ito[2], Yoko Ito[2], Tomohiro Uemura[1] ([1]Grad. Sch. of Humanities and Sciences, Ochanomizu Univ., [2]IHLS, Ochanomizu Univ.)	1aC08 Unique heterochromatin landscape in the rice endosperm Taiji Kawakatsu[1], Hanna Nishida[1], Hiroki Nagata[2], Akemi Ono[2], Kaoru Tonosaki[2], Tetsu Kinoshita[2] ([1]NIAS, NARO, [2]KIBR, YCU)	1aD08 Physiological analysis of Mongolian plant *Chloris virgata* and the novel growth promotive genes Shintaro Kawabata[1], Bolortuya Byambajav[2], Namuunaa Ganbayar[1], Ayumi Yamagami[1], Davaapurev Bekh-Ochir[2], Fuminori Takahashi[3], Komaki Inoue[3], Keiichi Mochida[3], Kazuo Shinozaki[3], Tadao Asami[4], Batkhuu Javzan[2], Takeshi Nakano[1] ([1]Grad. Sch. Sci., Univ. Kyoto, [2]National Univ. of Mongolia, [3]CSRS, Riken, [4]Grad. Sch. Sci., Univ. Tokyo)	1aE08 Structure-activity relationship and potential utility of a novel compound that activate both jasmonic acid and salicylic acid pathways Kazuyuki Kuchitsu[1], Taiki Funahashi[1], Kentaro Namiki[1], Nobutaka Kitahata[1,2], Yuho Saito[1], Masataka Nakano[1], Kenji Hashimoto[1], Tadao Asami[2], Seisuke Kimura[3], Shoya Otokozawa[1], Kenji Nemoto[1], Manami Awano[1], Kouji Kuramochi[1] ([1]Appl. Biol. Sci, Tokyo Univ. of Science, [2]Agr. Life Sci., Univ. of Tokyo, [3]Kyoto Sangyo Univ.)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/Morphogenesis	Photoreceptors/ Photoresponses	Systems biology				
1aF05 Stress-responsive rapid long-distance signaling in *Marchantia polymorpha* Kenshiro Watanabe, Kota Hasegawa, Yuki Kamiya, Hiroki Kikuchi, Hiroki Shindo, Kenji Hashimoto, Kazuyuki Kuchitsu (Dept. Appl. Biol. Sci., Tokyo Univ. of Science)	1aG05 Co-option of the conserved transcriptional module FAMA-WSB for defense against herbivores in Brassicales Makoto Shirakawa[1,2], Tomoki Oguro[1], Shigeo S Sugano[3], Shohei Yamaoka[4], Mayu Sagara[1], Mai Tanida[1], Hiroya Matsumoto[1], Kie Kumaishi[5], Soma Yoshida[6], Mutsumi Watanabe[1], Takayuki Tohge[1], Takamasa Suzuki[7], Yasunori Ichihashi[2,5], Atsushi Takemiya[6], Nobutoshi Yamaguchi[1], Takayuki Kohchi[4], Toshiro Ito[1] ([1]Graduate School of Science and Technology, Nara Institute of Science and Technology, Ikoma, Japan, [2]Precursory Research for Embryonic Science and Technology, Japan Science and Technology Agency, Kawaguchi-shi, Japan, [3]Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan, [4]Graduate School of Biostudies, Kyoto University, Kyoto, Japan, [5]RIKEN BioResource Research Center, Tsukuba, Japan, [6]Graduate School of Sciences and Technology for Innovation, Yamaguchi University, Yamaguchi, Japan, [7]Department of Biological Chemistry, College of Bioscience and Biotechnology, Chubu University, Kasugai, Japan)	1aH05 Studies on the function and role of two UVR8 homologs expressed in rice Misaki Sugai, Hanako Miura, Mika Teranishi, Jun Hidema (Grad. Sch. Life Sci., Tohoku Univ.)	1aI05 E Omics resources provide important insights into the biosynthesis of specialized metabolites in *Magnolia obovata* Megha Rai[1,2], Amit Rai[2,3], Towa Yokosaka[1], Tetsuya Mori[3], Ryo Nakabayashi[3], Michimi Nakamura[1], Hideyuki Suzuki[4], Kazuki Saito[2,3], Mami Yamazaki[1,2] ([1]Grad. Sch. of Pharm. Sci., Chiba Univ., [2]Plant Mol. Sci. Cntr., Chiba Univ., [3]CSRS, RIKEN, [4]Kazusa DNA Res. Inst.)	Symposium S01 Exploratory genomic evolutions and reproductive adaptations in plants (9:30–12:30)	Symposium S02 Plant Strategies for Survival Revealed from Regulatory System of Resource Allocation (9:30–12:30)	Symposium S03 Current development of genome editing: From various novel tools to potential applications (9:30–12:30)	10:30
1aF06 Functional analysis of Non-specific phospholipase C in *Marchantia polymorpha* Daisuke Uchikoshi[1], Misao Shimojo[1], Koichi Hori[1], Kimitsune Ishizaki[2], Hiroyuki Ohta[1], Mie Shimojima[1] ([1]Sch. Life Sci. and Tech., Tokyo Tech, [2]Grad. Sch. of Sci., Kobe Univ.)	1aG06 Live-cell imaging of *Arabidopsis* zygote reveals the mechanism of polar cell elongation Hikari Matsumoto[1], Sakumi Nakagawa[2], Takumi Higaki[3], Satoru Tsugawa[4], Yukitaka Ishimoto[4], Tomonobu Nonoyama[4], Zichen Kang[4], Minako Ueda[1,2] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]Fac. Sci., Tohoku Univ., [3]IROAST, Kumamoto Univ., [4]Grad. Sch. Sys. Sci., Akita Prefectural Univ.)	1aH06 Novel function of CDKA in regulation of light responses Sakuta Miyazaki[1], Natsumi Inoue[2], Masaki Ishikawa[3], Mitsuyasu Hasebe[3], Masami Sekine[4], 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.)	1aI06 Multi-omics in agroecosystem resolved the trade-off between crop growth and quality Fuki Fujiwara[1,2], Naoto Nihei[3], Atsushi Fukushima[4], Kenta Suzuki[1], Shohei Shimizu[5,6], Jun Kikuchi[7,8], Tomoko Matsumoto[7], Megumi Narukawa-Nara[1], Mao Suganami[3], Kae Miyazawa[2], Yasunori Ichihashi[1] ([1]BioResour. Res. Ctr., RIKEN, [2]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [3]Fac. Food Agri. Sci., Fukushima Univ., [4]Grad. Sch. Life Environ. Sci., Kyoto Pref. Univ., [5]Fac. Data Sci., Shiga Univ., [6]Ctr. Adv. Intell. Proj., RIKEN, [7]RIKEN Ctr. Sust. Resour. Sci., RIKEN, [8]Grad. Sch. Med. Life Sci., Yokohama City Univ.)				10:45
1aF07 Subcellular localization analysis of ABA signaling factors of *Physcomitrium patens* Yuko Ikeda[1], Izumi Yotsui[1], Teruaki Taji[1], Daisuke Takezawa[2], Yoichi Sakata[1] ([1]Dept. of Biosci., Tokyo Univ. Agri., [2]Grad. Sch. Sci and Eng., Saitama Univ.)	1aG07 The analysis for elucidation of molecular mechanism of somatic embryogenesis in carrot by light irradiation Kiryu Tsurukai[1], Hidetoshi Yamada[1,2], Katsumi Higashi[1,2] ([1]Grad. Sch. Sci. Eng., Teikyo Univ. Sci, [2]Facu. Lif. Env. Sci., Teikyo Univ. Sci.)	1aH07 Cleavage Factor I is Essential for Maintaining the Diversity at the 3' Ends of mRNA in Plants Xiaojuan Zhang[1], Łukasz Szewc[2], Mika Nomoto[3,4], Marta Garcia-León[5], Mariko Kato[1], Kei Yura[6,7,8], Vicente Rubio[5], Yasuomi Tada[3,4], Tsuyoshi Furumoto[9], Takashi Aoyama[1], Artur Jarmolowski[2], Tomohiko Tsuge[1] ([1]ICR, Kyoto Univ., [2]Inst. Mol. Biol. Biotech., Adam Mickiewicz Univ., [3]Ctr. Gene Res., Nagoya Univ., [4]Grad. Sch. Sci., Nagoya Univ., [5]Natl. Ctr. Biotech., CSIC, [6]Sch. Adv. Sci. Eng., Waseda Univ., [7]Grad. Sch. Humanit. Sci., Ochanomizu Univ., [8]Ctr. Interdiscip. AI and Data Sci., Ochanomizu Univ., [9]Sch. of Agric., Ryukoku Univ.)	1aI07 Chemical transcriptomics enable comprehensive analysis of plant responses induced by various chemicals Hayoung Lee[1], Natsumi Mori-Moriyama[1], Yasuyuki Nomura[2], Takumi Higaki[3], Ayato Sato[4], Atsushi J. Nagano[1,5] ([1]Faculty of Agriculture, Ryukoku University, [2]Research Institute for Food and Agriculture, Ryukoku University, [3]Faculty of Advanced Science and Technology (FAST), Kumamoto University, [4]Institute of Transformative BioMolecules (WPI-ITbM), Nagoya University, [5]Institute for Advanced Biosciences (IAB), Keio University)				11:00
1aF08 Analysis of B3-RAF like kinase-mediated SnRK2 activation in response to ABA/ osmostress in the moss *Physcomitrium patens* Naoya Kohara[1], Izumi Yotsui[1], Teruaki Taji[1], Daisuke Takezawa[2], Yoichi Sakata[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Grad. Sch. Sci and Eng., Univ. Saitama)	1aG08 Mechanisms of MpHYPNOS-mediated gemma dormancy in *Marchantia polymorpha* Nami Yoshimura[1], Mikako Yoshikawa[1], Arisa Yasuda[2], Hirotaka Kato[1,3], Yuuki Sakai[1], Tetsuro Mimura[1,4,5], Yuki Kondo[1], Hidehiro Fukaki[1], Kimitsune Ishizaki[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Fac. Sci., Kobe Univ., [3]Grad. Sch. Sci. Eng., Ehime Univ., [4]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [5]Col. Biosci. Biotech., National Cheng Kung Univ.)		1aI08 Three-dimensional Computed Tomography and Quantitative Image Analysis of a *Hibiscus cannabinus* Pulvinus Miyuki Nakata[1,2], Masahiro Takahara[3], Toshihiro Yamada[4], Taku Demura[1,2] ([1]NAIST, Bio, [2]NAIST, CDG, [3]Acacia Hort., [4]Osaka Metropolitan Univ, · Botanical Gardens)				11:15

E=Presentation in English

● Day 1, Wed., March 15, AM (9:30–12:30)

Time	Room A Photosynthesis	Room B Membrane trafficking	Room C Genome function/ gene regulation	Room D Environmental response A/ Physiological responses	Room E Plant hormones/ Signaling molecules
11:30	1aA09 Functional analysis of a nitrogenase-like enzyme from the photosynthetic bacterium *Rhodobacter capsulatus* Yoshiki Morimoto, Yuichi Fujita, Haruki Yamamoto (Grad. Sch. Bioagr. Sci., Nagoya Univ.)	1aB09 Functional analyses of the ESCRT-III complex in the liverwort, *Marchantia polymorpha* Naoki Minamino[1], Takuya Norizuki[2], Shoji Mano[1,3], Kazuo Ebine[1,3], Takashi Ueda[1,3] ([1]NIBB, [2]IMCR, Gunma Univ, [3]SOKENDAI)	1aC09 Interaction between polyadenylation and C-to-U editing of mitochondrial mRNA involved in *cytochrome c* maturation Akihito Mamiya[1,4], Kayoko Yamamoto[1], Takehito Kobayashi[2], Yusuke Yagi[2], Takahiro Nakamura[2], Takashi Hirayama[3], Hidehiro Fukaki[4], Munetaka Sugiyama[1] ([1]Department of Biological Sciences, Graduate School of Science, The University of Tokyo, [2]Department of Bioscience and Biotechnology, Faculty of Agriculture, Kyushu University, [3]Institute of Plant Science and Resources, Okayama University, [4]Department of Biology, Graduate School of Science, Kobe University)	1aD09 *In natura* study of leaf longevity: Distinctive controls between growing and overwintering seasons Hiroshi Kudoh[1], Genki Yumoto[1], Haruki Nishio[1,2], Tomoaki Muranaka[1,3], Jiro Sugisaka[1], Mie N. Honjo[1] ([1]CER, Kyoto Univ., [2]DS AI Center, Shiga Univ., [3]Facul. Agr., Kagoshima, Univ.)	1aE09 Large-scale transcriptome analysis of SA-JA Dose-dependent phytohormone responses in *Arabidopsis thaliana* Atsuki Tomita[1,2], Taro Maeda[2,3], Natsumi Mori-Moriyama[3], Yasuyuki Nomura[3], Yuko Kurita[4], Makoto Kashima[5], Masaru Tomita[1,2], Shigeyuki Betsuyaku[6], Atsushi J. Nagano[2,3,6] ([1]Dept. Environment & Info. Studies., Keio Univ., [2]IAB, Keio Univ., [3]Res. Inst. Food Agr., Ryukoku Univ., [4]Res. Inst. Food Agr., Ryukoku Univ., [5]Coll. Sci. Eng., Aoyama Gakuin Univ., [6]Fac. Agr., Ryukoku Univ.)
11:45	1aA10 Electrostatic Binding of Water-soluble Subunits on the Photosynthetic Reaction Center of Green Sulfur Bacteria Tomomi Inagaki, Kazuki Terauchi, Chihiro Azai (Graduate School of Life Sciences, Ritsumeikan University)	1aB10 Mutant screening for normally shaped formation of the oil body in *Marchantia polymorpha* Takehiko Kanazawa[1,2], Sho Hachinoda[2], Takashi Ueda[1,2] ([1]Dev. of Cellular Dynamics, NIBB, [2]Sch. Life Sci., SOKENDAI)	1aC10 A defect in an RNA metabolic enzyme suppresses the adverse effect of the accumulation of polyadenylated mitochondrial mRNA in Arabidopsis Takashi Hirayama[1], June-Sik Kim[1,2], Keiichi Mochida[2] ([1]IPSR, Okayama Univ., [2]CSRS, RIKEN)	1aD10 *Cuscuta campestris* modulates photoresponses during the transition from germinating seedling to mature shoot as an adaptation to light environment Toshiya Yokoyama[1], Mariko Asaoka[2], Akira Watanabe[3], Kazuhiko Nishitani[2] ([1]Grad. Sch. Sci., Kanagawa Univ., [2]Fac. Sci., Kanagawa Univ., [3]IMRAM, Tohoku Univ.)	1aE10 Ⓔ Effect of Prohydrojasmon on The Growth of Komatsuna and Their Mechanism Action Haidar Rafid Azis[1], Shinya Takahashi[1,2], Mitsuko Aono[2,5], Nobuyoshi Nakajima[5], Masami Koshiyama[3], Hiroshi Fujisawa[4], Hiroko Isoda[1,2] ([1]Alliance for Research on the Mediterranean and North Africa (ARENA), University of Tsukuba, Tsukuba, Japan, [2]Faculty of Life and Environmental Sciences, University of Tsukuba, Tsukuba, Japan, [3]Specialty Chemical Division, Zeon Corporation, Chiyoda-ku, Tokyo, Japan, [4]Special Adviser, Zeon Corporation, Chiyoda-ku, Tokyo, Japan, [5]Biodiversity Division, National Institute for Environmental Studies, Tsukuba, Japan)
12:00	1aA11 Light-harvesting kinetics and spectral heterogeneity of photosystem I assembly intermediates Yutaka Shibata[1], Naoya Kaneda[1], Sreedhar Nellaepalli[2], Yuichiro Takahashi[2] ([1]Grad. Sch. Sci., Tohoku Univ., [2]RIIS, Okayama Univ.)	1aB11 A plant-derived antifungal agent, poacic acid, inhibits germination and tube growth of lily pollen Nanami Kobayashi[1], Yoshikazu Ohya[2], Yasuko Hayashi[3], Shuh-ichi Nishiawa[3] ([1]Grad. Sch. Sci. Tech., Niigata, [2]Grad. Sch. Front. Sci, Univ. Tokyo, [3]Fac. Sci. Niigata Univ.)			1aE11 Δ^4-dinor-OPDAs, novel ancestral jasmonates of *Marchantia polymorpha* Takuya Kaji[1], Hidenori Yoshimatsu[1], Nobuki Kato[1], Haruka Sakurai[1], Gangqiang Yang[2], Guillermo H. Jimenez-Aleman[3], Roberto Solano[3], Minoru Ueda[1,4] ([1]Grad. Sch. Sci., Tohoku Univ., [2]Sch. Pharmacy, Yantai Univ., [3]CNB-CSIC, [4]Grad. Sch. Life Sci., Tohoku Univ.)
12:15	1aA12 Environmental responses of photosystem I light-harvesting activity in rice leaves Daisuke Takagi (Setsunan University, Faculty of Agriculture)				1aE12 Jasmonate inhibits plant growth through the regulation of endogenous gibberellin levels Jutarou Fukazawa[1], Kazuya Mori[1], Ryota Mori[1], Hiroki Ando[1], Yuri Kanno[2], Mitsunori Seo[2], Yohsuke Takahashi[1] ([1]Grad Sch. Int. Sci. Life, Hiroshima Univ., [2]CSRS, Riken)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/Morphogenesis	Photoreceptors/ Photoresponses	Systems biology				
1aF09 Functional analyses of sensor histidine kinases regulating ABA and osmostress signaling in the moss *Physcomitrium patens* Marcos Takeshi Miyabe[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. Sci. Eng., Saitama Univ.)	1aG09 Cytokinin works downstream of the KL signaling pathway to control vegetative reproduction in *Marchantia polymorpha* Aino Komatsu[1], Mizuki Fujibayashi[2], Fukutaro Hosoya[2], Kazato Kumagai[1], Hidemasa Suzuki[1], Kyoichi Kodama[1], Yohei Mizuno[1], Yumiko Takebayashi[3], Mikiko Kojima[3], Hitoshi Sakakibara[3,4], Xiaonan Xie[5], Satoshi Naramoto[1,6], Junko Kyozuka[1] ([1]Grad. Sch., Life Sci., Tohoku Univ., [2]Fac. Sci., Tohoku Univ., [3]RIKEN, CSRS, [4]Grad. Sch., Bioagri. Sci., Nagoya Univ., [5]Ctr. for Biosci. Res. & Educ., Utsunomiya Univ., [6]Fac. Sci., Hokkaido Univ.)		1aI09 Automatic Quantification of *Arabidopsis* Stomatal Aperture Using Deep Learning Momoko Takagi[1], Rikako Hirata[2], Yusuke Aihara[1,3], Yuki Hayashi[4], Miya Mizutani-Aihara[1], Eigo Ando[5], Megumi Yoshimura-Kono[6], Masakazu Tomiyama[6], Toshinori Kinoshita[1,4], Akira Mine[2], Yosuke Toda[1,6] ([1]ITbM, Nagoya Univ., [2]Grad. Sch. Agr., Kyoto Univ., [3]JST PRESTO, [4]Grad. Sch. Sci., Nagoya Univ., [5]Sch. Sci. Univ. Tokyo, [6]Phytometrics Co., Ltd.)	Symposium S01 Exploratory genomic evolutions and reproductive adaptations in plants (9:30–12:30)	Symposium S02 Plant Strategies for Survival Revealed from Regulatory System of Resource Allocation (9:30–12:30)	Symposium S03 Current development of genome editing: From various novel tools to potential applications (9:30–12:30)	11:30
1aF10 Ⓔ Targeted in vivo mutagenesis of a sensor histidine kinase responsible for ABA signaling in the moss *Physcomitrium patens* Rahul Sk[1], Marcos Takeshi Miyabe[1], Daisuke Takezawa[2], Shunsuke Yajima[1], Izumi Yotsui[1], Teruaki Taji[1], Yoichi Sakata[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Grad. Sch. Sci. Eng., Saitama Univ.)	1aG10 A Rice Cleistogamous Mutant, *cls3,* Shows Hampered Swelling Ability of Lodicules Takeshi Kuroha[1], Mayumi Kimizu[1], Akihito Nozaka[1], Yoshihiro Kawahara[2], Hitoshi Yoshida[1] ([1]Inst. Agrobiological Sci., NARO, [2]Res. Ctr. Advanced Analysis, NARO)						11:45
1aF11 Functional Analysis of SAL1-PAP Retrograde Signaling in the moss *Physcomitrium patens* Tomoki Otani, Izumi Yotsui, Teruaki Taji, Yoichi Sakata (Department of Bioscience, Tokyo University of Agriculture)	1aG11 Genome Sequencing of a Multicellular Zygnematophycean Alga *Spirogyra parvula* and Comparison with Unicellular Zygnematophyceans and Embryophytes Tomoaki Nishiyama[1], Hisato Ikegaya[2], Tomoyuki Takano[2,3], Hidetoshi Sakayama[2], Hiroyuki Sekimoto[4] ([1]Kanazawa Univ., [2]Kobe Univ., [3]Univ. Tokyo, [4]Japan Women's Univ.)						12:00
1aF12 Ⓔ Abscisic acid-induced osmostress tolerance mediated by the EIN2-related Nramp-family proteins in the moss *Physcomitrium patens* Md. Masudul Karim[1,2], Mousona Islam[1], Kanata Hirota[1], Yoichi Sakata[3], Daisuke Takezawa[1] ([1]Graduate School of Science and Engineering, Saitama University, Saitama, 338-8570, Japan, [2]Department of Crop Botany, Bangladesh Agricultural University, Mymensingh-2202, Bangladesh, [3]Department of Bioscience, Tokyo University of Agriculture, Tokyo, 156-8502, Japan)	1aG12 Establishing genome information for mutant resources of the National BioResource Project Morning Glories Atsushi Hoshino[1,2], Kenta Shirasawa[3], Tetsuya Yamada[4], Atsushi Toyoda[5], Eiji Nitasaka[6] ([1]NIBB, [2]SOKENDAI, [3]Kazusa DNA Res. Inst., [4]Grad. Sch. Agri., Tokyo. Univ. Agri. Tech, [5]NIG, [6]Grad. Sch. Sci., Kyushu Univ.)						12:15

Ⓔ=Presentation in English

● Day 1, Wed., March 15, PM (14:00–17:00)

Time	Room A Photosynthesis	Room B Biomembrane/ Ion and solute transport	Room C Genome function/ gene regulation	Room D Specialized (secondary) metabolism	Room E Reproduction
14:00	1pA01 The Role of PGRL1 in the Photoprotection of Photosystem I in the Green Alga *Chlamydomonas reinhardtii* Hiroko Takahashi[1], Kenta Takayama[1], Atsuko Isu[2], Ken-ichi Wakabayashi[2], Toru Hisabori[2], Yoshitaka Nishiyama[1] ([1]Graduate School of Science and Engineering, Saitama University, [2]Laboratory for Chemistry and Life Science, Institute of Innovative Research, Tokyo Institute of Technology)	1pB01 Investigation on the possible involvement of phosphatidic acid in the polar localization of silicon transporter Lsi1 in rice Noriyuki Konishi, Jian Feng Ma (IPSR Okayama Univ)	1pC01 A feedback mechanism of polyamine synthesis via translational control by a non-AUG-initiated upstream ORF and an RNA secondary structure Yuta Hiragori[1], Miharu Yasumuro[2], Atsushi Kaido[1], Taihei Karino[1], Yui Yamashita[1], Satoshi Naito[1], Hitoshi Onouchi[1] ([1]Grad. Sch. Agr. Hokkaido Univ., [2]Sch. Agr. Hokkaido Univ.)	1pD01 Investigation of the (+)-pisatin biosynthesis in pea (*Pisum sativum* L.) based on transcriptome analysis Kai Uchida[1], Masami Yokota Hirai[1,2] ([1]RIKEN CSRS, [2]Grad Sch Bioagric Sci, Nagoya Univ)	1pE01 E Dynamics of male mitochondria in rice zygotes and partial retention of male mitochondrial DNA in rice plant Hanifah Aini[1], Kasidit Rattanawong[1], Mari Tanaka[2], Hiroyuki Tsuji[2], Takashi Okamoto[1] ([1]Grad. Sch. Sci., Tokyo Met. Univ., [2]Kihara Inst., Yokohama City Univ.)
14:15	1pA02 Environments of Coordinates for High Spin S_2 Intermediate in the Oxygen Evolving Complex Measured by Multi-frequency EPR Hiroyuki Mino[1], Shinya Kaosaki[2], Yoshiki Nakajima[3], Jian-Ren Shen[3,4] ([1]Grad, Sch. Sci., Nagoya Univ., [2]Fac. Sci., Nagoya Univ., [3]Res. Inst. Interdiscip. Sci., Okayama Univ, [4]Key Lab. Photobiol., Inst. Botany, Chinese Acad. Sci., China)	1pB02 E Functional characterization of two genes involved in phosphorus loading into barley grains Hengliang Huang, Hiroshi Hisano, Sheng Huang, Namiki Mitani-Ueno, Kazuhiro Sato, Naoki Yamaji, Jian Feng Ma (Institute of Plant Science and Resources, Okayama University)	1pC02 Gene expression analysis of *Arabidopsis* tRNA-wobbleU modification mutants Yumi Nakai (Dept. of Biochemistry, Osaka Medical and Pharmaceutical Univ.)	1pD02 Two Peroxisomal 4-Coumaroyl-CoA Ligases are Involved in Shikonin Biosynthesis of *Lithospermum erythrorhizon* Kohei Nakanishi[1], Hao Li[1], Takuji Ichino[1], Kanade Tatsumi[1], Keishi Osakabe[2], Bunta Watanabe[3], Koichiro Shimomura[4], Kazufumi Yazaki[1] ([1]RISH, Kyoto Univ., [2]Faculty of Biosci. and Bioind., Tokushima Univ., [3]Chem. Lab., The Jikei Univ. School of Medicine, [4]Graduate School of Life Sci., Toyo Univ.)	1pE02 Histological anaysis of the indehiscent anthers caused by the mitochondrial gene *orf312* in Tadukan-type cytoplasmic male sterile rice Ayumu Takatsuka[1], Tomohiko Kazama[2], Kinya Toriyama[1] ([1]Grad. Sch. Agri. Sci., Tohoku Univ., [2]Fac. Agri. Sci., Kyushu Univ.)
14:30	1pA03 Evaluation of the redox potential of tyrosine D in photosystem II Yuki Kato, Sohei Iwado, Ayaho Masamoto, Hiroyuki Mino, Takumi Noguchi (Grad. Sch. Sci, Nagoya Univ.)	1pB03 E OsMGT2 mediates the translocation and preferential distribution of magnesium in rice Sheng Huang, Naoki Yamaji, Jian Feng Ma (Institute of Plant Science and Resources, Okayama University)	1pC03 ChIP-seq analysis of cold shock protein involved in growth regulation in dinoflagellate *Breviolum minutum* Shizue Yoshihara[1], Yohei Minakuchi[2], Atsushi Toyoda[2], Hayato Tokumoto[1] ([1]Grad. Sch. Sci., Osaka Metro. Univ., [2]Comp. Genom. Lab., NIG)	1pD03 Analysis of the proanthocyanidin biosynthesis pathway Rei Kawamata, Takayuki Tohge, Mutsumi Watanabe, Aoi Shimeno (NARA INSTITUTE of SCIENCE and TECHNOLOGY DIVISION of BIOLOGICAL SCIENCE)	1pE03 Investigation of Ca^{2+} and vesicle localization inside pollen of cytoplasmic male sterile tomato Kosuke Kuwabara[1], Tohru Ariizumi[2] ([1]Grad. Sch. Sci. and Tech., Univ. Tsukuba, [2]Fac. Life Env. Sci., Univ. Tsukuba)
14:45	1pA04 Effects of site-directed mutations at D1-R140 interacting with one phosphatidylglycerol molecule (PG714) on structure, function, and assembly of PSII Yoshiki Tanase[1], Toshiyuki Shinoda[1], Kaichiro Endo[2], Tatsuya Tomo[3], Jian-Ren Shen[4], Haruhiko Jimbo[2], Hajime Wada[2], Naoki Mizusawa[1,5] ([1]Fac. Biosci. Appl. Chem., Hosei Univ., [2]Grad. Sch. Arts Sci., Univ. Tokyo, [3]Grad. Sch. Sci., Tokyo Univ. Sci., [4]RIIS, Okayama Univ., [5]Res. Micro-Nano Tech., Hosei Univ.)	1pB04 E Physiological and molecular characterization of high Mn tolerance in Cd/Zn hyperaccumulator *Sedum alfredii* Jun Ge, Jian Feng Ma (Institute of Plant Science and Resources, Okayama University)	1pC04 Analysis of the dicing activity of DCL4 for expression of the bicolor trait in dahlia Kazunori Kuriyama[1], Sho Ohno[2], Midori Tabara[3], Hiromitsu Moriyama[1], Toshiyuki Fukuhara[1] ([1]Tokyo Univ. of Agri. and Tech., [2]Kyoto Univ., [3]Ritsumeikan Univ.)	1pD04 Identification and characterization of *C*-glycosyltransferases from *Carthamus tinctorius* L. Mei Kadowaki[1], Toshiyuki Waki[1], Naoki Fujita[2], Kazuki Numanoi[1], Tomoya Sato[1], Miho Terashita[1], Keishi Fukuda[2], Mikiya Kato[2], Takashi Negishi[3], Hiromi Uchida[3], Yuichi Aoki[4], Goro Taguchi[5], Seiji Takahashi[1], Toru Nakayama[1] ([1]Grad. Sch. Eng., Tohoku Univ., [2]TOYO INK SC HOLDINGS Co., Ltd., [3]TOYOCHEM Co., Ltd., [4]Tohoku Medical Megabank Organization, [5]Facult. Textile Sci. Technol., Shinshu Univ.)	1pE04 Discovery of Candidate Genes for Potato β-CMS Rika Nakajima[1], Kosuke Kuwabara[2], Natsuki Odate[1], Kenta Shirasawa[3], Tohru Ariizumi[4] ([1]Fac. Agro-Bio Res., Univ. Tsukuba, [2]Grad. Sch. Sci. and Tech., Univ. Tsukuba, [3]Kazusa DNA Res. Inst., [4]Fac. Life Env. Sci., Univ. Tsukuba)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/ Morphogenesis	Plant-organism interaction B	Systems biology		New tecnology		
1pF01 Observation of Ca^{2+} propagation with a near-infrared femtosecond laser Takumi Tobita[1], Kensuke Shiina[1], Takumi Tomoi[2,3], Yukiko Kabeya[4], Mitsuyasu Hasebe[4,5], Masatsugu Toyota[6], Yoshio Hayasaki[7], Satoshi Hasegawa[7], Yosuke Tamada[1,3,4,5,7,8] ([1]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ., [2]Ctr. Innov. Spt., Utsunomiya Univ., [3]Sch. Eng., Utsunomiya Univ., [4]Div. Evol. Biol., Natl. Inst. Basic Biol., [5]Sch. Life Sci., SOKENDAI., [6]Dept. Biochem. Mol. Biol., Saitama Univ., [7]CORE, Utsunomiya Univ., [8]REAL, Utsunomiya Univ.)	1pG01 Brassinosteroid receptor-mediated regulation of tissue regeneration in *Arabidopsis* Ye Zhang, Kazuki Suita, Naoki Takahashi, Masaaki Umeda (Grad. Sch. Sci. Tech., NAIST)	1pH01 Development of a live imaging system for visualizing legume–rhizobium interactions Hanna Nishida, Yoshikazu Shimoda, Haruko Imaizumi-Anraku (NARO)	1pI01 Optimization of sampling conditions for predicting gene expression in rice Dan Eiju[1], Tarou Maeda[2], Satoshi Okubo[9], Makoto Kashima[5], Daisuke Kyougoku[6], Yoichi Hashida[7], Naoya Mori[8], Hiroyuki Watanabe[8], Shunsuke Adachi[4], Atsushi J. Nagano[2,3], Masaru Tomita[1,2] ([1]Dept. Environment & Info. Studies., Keio Univ, [2]IAB, Keio Univ, [3]Res. Inst. Food Agr. Ryukoku Univ, [4]Institute of Agriculture, Tokyo University of Agriculture and Technology, [5]Coll. Sci. Eng., Aoyama Gakuin Univ., [6]Museum of Nature and Human Activities, [7]Faculty of Agriculture, Takasaki University of Health and Welfare, [8]Faculty of Agriculture, Tamagawa University, [9]LifeScience, Tohoku University)	Symposium S04 Artificial designs of plant-soil-microbe relationships stop global warming (14:00–17:00)	1pY01 Targeted base editing in *Arabidopsis* nuclear genes via DNA recognition by TALE domains Ayako Hosoda[1], Issei Nakazato[1], Miki Okuno[2], Takehiko Itoh[3], Hideki Takanashi[1], Nobuhiro Tsutsumi[1], Shin-ichi Arimura[1] ([1]Grad. Sch. of Agri. Life Sci., The Univ. of Tokyo, [2]Sch. of Med., Kurume Univ., [3]Sch. of Life Sci. and Tech., Tokyo Institute of Tech.)	Symposium S05 Circadian and Seasonal Mechanisms in Plant Development and Physiology (14:00–17:00)	14:00
1pF02 Evaluation of diagnosis techniques for excessive shading stress in tea plants using delayed fluorescence Keitaro Koike[1], Yuhei Hirono[2,3], Masakazu Katsumata[4], Hiroto Yamashita[1,3], Takashi Ikka[1,3,5] ([1]Graduate school of Agriculture, Shizuoka University, [2]Institute of Fruit Tree and Tea Science, NARO, [3]Institute for Tea Science, Shizuoka University, [4]HAMAMATSU PKOTONICS K. K, [5]Research Institute of Green Science and Technology, Shizuoka University)	1pG02 Regulatory roles of WOX13 to repress shoot regeneration in *Arabidopsis thaliana* Nao Ogura[1,2], Momoko Ikeuchi[2] ([1]Grad. Sch. Sci., Niigata Univ., [2]NAIST., Bio)	1pH02 NDR1/HIN1-Like protein 13 regulates nodulation Akihiro Yamazaki[1], Kai Battenberg[1], Yoshikazu Shimoda[2], Makoto Hayashi[1,2] ([1]Center for Sustainable Resource Science, RIKEN, [2]Institute of Agrobiological Sciences, National Agriculture and Food Research Organization)	1pI02 Ⓔ The coexpression map provides an entry point for exploring gene coexpression space in ATTED-II v11 Takeshi Obayashi (Tohoku Univ)		1pY02 Targeted base editing in chloroplast genome of *Arabidopsis thaliana* with a highly active base editor Issei Nakazato, Nobuhiro Tsutsumi, Shin-ichi Arimura (Grad. Sch. of Agr. and Life Sci., Univ. of Tokyo)		14:15
1pF03 Spatiotemporal oxygen imaging: Visualization of oxygen dynamics during rice underwater germination using a planar oxygen optode Hinako Shiba[1], Akiko Koshide[1], Morten Larsen[2], Kazunari Iwasaki[1], Takeshi Fukao[1], Kazumasa Oguri[2], Ronnie N. Glud[2], Katsuhiro Shiono[1] ([1]Grad. Sch. Biosci. Biotech., Fukui Pref. Univ., [2]HADAL and Nordcee, Univ. South. Denmark)	1pG03 Single-cell Transcriptomic Analysis of Epidermal Reprogramming in Direct Shoot Regeneration Hatsune Morinaka[1], Shi Dongbo[1,2], Ayako Kawamura[1], Akihito Mamiya[3], Hiroaki Tamaki[4], Takamasa Suzuki[5], Akira Iwase[1], Tetsuya Higashiyama[4], Munetaka Sugiyama[4], Keiko Sugimoto[1,4] ([1]CSRS, RIKEN, [2]IBB, Univ. Potsdam, Brandenburg, Germany, [3]Dept. Biol., Grad. Sch. Sci., Kobe Univ., [4]Dept. Biol. Sci., Grad. Sch. Sci., Univ. Tokyo, [5]Dept. Biol. Chem., Coll. Biosci. Biotech., Chubu Univ)	1pH03 Ⓔ Functional diversity and phylogenic classification of lysin motif receptor-like kinases (LysM-RLKs) in land plants Hafijur Ruman[1], Masanori Saito[2], Yasuyuki Kawaharada[1,2] ([1]United Grad. Sch. of Agri. Sci. Iwate Uni., [2]Dep. of Plant Bio. Fac. of Agri. Iwate Uni.)	1pI03 Designing Rhizosphere Microbial Communities for Promoting Tomato Growth Yuichi Aoki[1,2], Shinichi Yamazaki[1], Masaru Nakayasu[3], Keiko Kanai[3], Rumi Kaida[4], Yoshiharu Fujii[4], Akifumi Sugiyama[3] ([1]ToMMo, Tohoku Univ., [2]Grad. Sch. Info. Sci., Tohoku Univ., [3]RISH, Kyoto Univ., [4]Tokyo Univ. of Agriculture and Technology)		1pY03 Trials of Random Mutagenesis for Plant Organelle Genomes in *Arabidopsis thaliana* Yoshiki Harada, Issei Nakazato, Nobuhiro Tsutsumi, Shin-ichi Arimura (Grad. Sch. of Agri. Life Sci., The Univ. of Tokyo)		14:30
1pF04 Changes in the photosynthetically related anatomical characteristics of the heterophyllous amphibious plant *Hygrophila difformis* after submersion Genki Horiguchi[1], Yusuke Mizokami[1], Naoki Hirotsu[2], Ko Noguchi[1] ([1]Sch. Life Sci, Tokyo univ. Pharm. Life Sci., [2]Sch. Life Sci. Toyo univ.)	1pG04 Molecular mechanisms of developmental reprogramming in differentiated leaf mesophyll cells Yuki Sakamoto[1,2], Ayako Kawamura[2], Takamasa Suzuki[3], Shoji Segami[4,5], Masayoshi Maeshima[3], Stefanie Polyn[6,7], Lieven De Veylder[6,7], Keiko Sugimoto[1,2] ([1]Grad. Sch. Sci., Univ. Tokyo, [2]CSRS, RIKEN, [3]Col. Biosci. Biotech., Chubu Univ., [4]NIBB, [5]SOKENDAI, [6]Ghent Univ., [7]Plant Sys. Biol., VIB-UGhent)	1pH04 Control of nodule formation and shoot water homeostasis in *Lotus japonicus* Kensuke Kawade[1,2,3], Daisuke Sugiura[4], Akira Oikawa[3,5], Masayoshi Kawaguchi[1,2] ([1]Division of symbiotic systems, National Institute for Basic Biology (NIBB), [2]School of Life Science, Graduate University for Advanced Studies (SOKENDAI), [3]RIKEN Center for Sustainable Resource Science (RIKEN CSRS), [4]Graduate School of Bioagricultural Sciences, Nagoya University, [5]Graduate School of Agriculture, Kyoto University)	1pI04 Databases for discovering plant species-specific unknown metabolites Nozomu Sakurai[1,2,3], Shinichi Yamazaki[4], Kunihiro Suda[2], Ai Hosoki[1], Nayumi Akimoto[2], Haruya Takahashi[5], Daisuke Shibata[2], Yuichi Aoki[4,6] ([1]National Institute of Genetics, [2]Kazusa DNA Res Inst., [3]Sakura Sci., [4]ToMMo, Tohoku Univ., [5]Grad. Sch. Agr., Kyoto Univ., [6]Grad. Sch. Info. Sci., Tohoku Univ.)		1pY04 Ⓔ Targeted-base editing by TALE-based adenine deaminases for organelle genomes in Arabidopsis Chang Zhou, Issei Nakazato, Yoshiko Tamura, Reiko Masuda, Nobuhiro Tsutsumi, Shin-ichi Arimura (Grad. Agri., Univ. Tokyo)		14:45

Ⓔ=Presentation in English

● Day 1, Wed., March 15, PM (14:00–17:00)

Time	Room A	Room B	Room C	Room D	Room E
	Photosynthesis	Biomembrane/ Ion and solute transport	Genome function/ gene regulation	Specialized (secondary) metabolism	Reproduction
15:00	1pA05 Galactolipase enhances the degradation of D1 during the PSII repair Haruhiko Jimbo, Hajime Wada (Graduate School of Arts and Sciences, University of Tokyo)	1pB05 Linking root morphology and anatomy with boron uptake in rice Toshiki Fujii, Naoki Yamaji, Jian Feng Ma (IPSR, Okayama Univ.)	1pC05 Translatome analysis of TMV-infected *Arabidopsis thaliana* Yuma Tsukada[1], Yukio Kurihara[2,4], Yuko Makita[3], Masaharu Kawauchi[4], Minami Matsui[4], Yuichiro Watanabe[2] ([1]Col. Sch. Arts Sci., Univ. Tokyo, [2]Grad. Sch. Arts Sci., Univ. Tokyo, [3]Fac. Eng. Maebashi Inst. Tech, [4]RIKEN CSRS)	1pD05 Anthocyanin synthesis potential in betalain-producing Caryophyllales plants Masaaki Sakuta[1,4], Asuka Tanaka[1], Kaori Iwase[1], Mizuki Miyasaka[1], Sachiko Ichiki[1], Miho Hatai[1], Yoriko Inoue[1], Ayumi Yamagami[2], Takeshi Nakano[2], Kazuko Yoshida[1], Setsuko Shimada[3] ([1]Biol., Ochanomizu Univ., [2]Grad. Sci. Bio., Kyoto Univ., [3]CSRS, Riken, [4]OSRI, Meiji Univ.)	1pE05 Cuticles inhibit the pollen germination process as an interspecies reproductive barrier in Brassicaceae Yoshinobu Kato[1,2], Yuka Kimura[1], Seiji Takayama[1], Sota Fujii[1,3] ([1]Grad. Sch. Agric. Life Sci., Univ. Tokyo, [2]JST PRESTO, [3]Suntory SunRiSE)
15:15	1pA06 Mechanism of the photoinhibition of photosystem II under strong UV-A illumination in *Synechocystis* sp. PCC 6803 Shunta Kojima, Yoshitaka Nishiyama (Grad. Sch. Sci. Eng., Saitama Univ)	1pB06 Functional analyses of guard-cell-type ALMT proteins Takayuki Sasaki, Yoko Yamamoto, Izumi Mori (Institute of Plant Science and Resources, Okayama University)	1pC06 Screening of suppressors for Arabidopsis *drol1* mutant Takamasa Suzuki, Tomoko Niwa, Gaiki Ono, Daisuke Aramaki, Yuuma Ito, Yuriko Inami, Itsuki Inoue (Col. Biosci. Biotech., Chubu Univ.)	1pD06 E Characterization of tomato high sugar mutant *hs1* Shaoze Yuan, Islam M Y Abdellatif, Siyan Xu, Tohru Ariizumi, Hiroshi Ezura, Kenji Miura (Graduate School of Life and Earth Science, University of Tsukuba)	1pE06 Biochemical analysis of the functional role of cysteine residues in SPRI1 involving Brassicaceae interspecies incompatibility Shun Tadokoro[1], Yoshinobu Kato[1,2], Shota Ishida[1], Yuka Kimura[1], Seiji Takayama[1], Sota Fujii[1,3] ([1]Grad. Sch. Agric. Life Sci, Univ. Tokyo, [2]JST PRESTO, [3]Suntory SunRiSE)
15:30	1pA07 Photoprotective roles of carotenoid glycosides in photosystem II during high-light acclimation in *Synechocystis* sp. PCC 6803 Moeka Onda[1], Ikumi Kaihatsu[2], Taichi Izuhara[1], Shinichi Takaichi[3], Yoshitaka Nishiyama[1,2] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Dept. Biochem. Mol. Biol., Saitama Univ., [3]Dept. Mol. Microbiol., Faculty of Life Science, Tokyo Univ. Agriculture)	1pB07 KUP9-mediated potassium distribution in *Arabidopsis thaliana* under low K^+ stress Taro Yamanashi[1], Takeshi Uchiyama[1], Shunya Saito[1], Taiki Higashi[1], Hayato Ikeda[2,3], Hidetoshi Kikunaga[2], Mutsumi Yamagami[4], Yasuhiro Ishimaru[1], Nobuyuki Uozumi[1] ([1]Grad. Sch. Eng., Univ. Tohoku, [2]ELPH, Univ. Tohoku, [3]CYRIC, Univ. Tohoku, [4]Inst for Env Sci)	1pC07 Cytokinin-dependent Regulation of Cell Potency is Regulated by pre-mRNA Splicing Ami Takeuchi[1], Kenji Nagamiya[2], Takuyuki Ikeda[2], Iwai Ohbayashi[2], Munetaka Sugiyama[2], Misato Ohtani[1,3,4] ([1]Grad. Sch. Front. Sci., Univ. Tokyo, [2]Grad. Sch. Sci., Univ. Tokyo, [3]Div. Bio. Sci., NAIST, [4]CSRS, RIKEN)	1pD07 Functional analysis of sulfur deficiency responsive genes in *Glycine max* Aina Ieda, Takayuki Tohge, Mutsumi Watanabe (Grad. Sch. Sci., Tech., NAIST)	1pE07 Induced co-recessive of pollen-side self-incompatible genes by modified small RNAs in Brassicaceae Risa Kobayashi[1], Yuko Wada[1], Osamu Kataoka[1], Natsumi Oi[1], Shinsuke Yasuda[1], Hiroshi Shiba[2], Seiji Takayama[3], Toshiro Ito[1] ([1]Grad. Sch. of Biol. Sci., Nara Inst. of Sci. and Tech., [2]Grad. Sch. of Life Env., Univ. of Tsukuba, [3]Grad. Sch. of Agri. Life Sci. Tokyo Univ.)
15:45	1pA08 E Improved capacity of photosystem II for minimizing photoinhibition via modification of translation and antioxidative systems in *Synechocystis* sp. PCC 6803 Pornpan Napaumpaiporn, Yoshitaka Nishiyama (Grad. Sch. Sci. Eng., Saitama Univ.)	1pB08 Evaluation of sodium tolerance in Arabidopsis with tissue-specific expression of Na+/H+ antiporter SOS1 Mio Nagoya, Tomoki Nagata, Takaaki Ogura, Yuko Kurita, Natsuko I. Kobayashi, Keitaro Tanoi (Grad. Sch. Agri. Life Sci. UTokyo)	1pC08 Arabidopsis Dim1 homolog, a subunit of U5 snRNP, is involved in nutrient stress response Kodai Ishibashi[1], Toshiro Arae[1], Takeshi Yoshizumi[2], Yukio Kurihara[2,3], Takashi Kuromori[2], Minami Matsui[2], Misato Ohtani[1,2] ([1]GSFS., Univ. Tokyo, [2]RIKEN, CSRS, [3]Grad. Sch. Art. Sci., Univ. Tokyo)	1pD08 Identification of genes reducing oxalate accumulation in spinach using VIGS Shoya Ichikawa[1], Kazuhiro Ishibashi[2], Tadasu Frusho[3], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri, [2]National Agriculture and Food Research Organization, [3]Department of International Food and Agricultual Science, Tokyo university of agriculture)	1pE08 E Identification of a novel U-chromosomal gene required for egg cell differentiation in *Marchantia polymorpha* Yen-Ting Lu[1], Yihui Cui[1], Masaki Shimamura[2], Sakiko Ishida[1], Tomoaki Kajiwara[3], Tetsuya Hisanaga[1,4], Takayuki Kohchi[3], Tatsuaki Goh[1], Keiji Nakajima[1] ([1]Grad. Sch. Biol. Sci., NAIST, [2]Grad. Sch. Integr. Sci. Life, Hiroshima Univ., [3]Grad. Sch. Biostudies, Kyoto Univ., [4]Gregor Mendel Institute)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/ Morphogenesis	Plant-organism interaction B	Systems biology		New tecnology		
1pF05 Locally Introduced Atypical HLHFactors Control Coordinated Elongation of Non-Transformed Cells Yosuke Takeuchi[1], Yuzuru Tozawa[1], Miho Ikeda[1,2] ([1]Grad. Sch. Shi., Saitama Univ., [2]Biosci. Biotech., Fukui Pref. Univ.)	1pG05 E Light signals determine the new meristem fate during *de novo* organogenesis in *Arabidopsis thaliana* Yu Chen[1,2], David Favero[2], Ayako Kawamura[2], Takamasa Suzuki[3], Keiko Sugimoto[1,2] ([1]Grad. Sch. Sci., The Univ. of Tokyo, [2]CSRS, RIKEN, [3]Col. Biosci. Biotech., Chubu Univ.)	1pH05 Natural Variation Related to Nitrate-mediated Control of Nodulation Momoyo Ito[1], Masaru Bamba[2], Hanmou Chen[1], Shohei Nosaki[1,3], Yuri Tajima[1], Kenji Miura[1,3], Shusei Sato[2], Takuya Suzaki[1,3] ([1]Fac. Life. Sci., Univ. Tsukuba, [2]Grad. Sch. Life. Sci., Tohoku Univ., [3]T-PIRC, Univ. Tsukuba)	1pI05 Integrated analysis of plant metabolic and genomic information using XMRs Shinichi Yamazaki[1], Nozomu Sakurai[2,3,4], Kunihiro Suda[3], Ai Hosoki[2], Nayumi Akimoto[3], Haruya Takahashi[5], Daisuke Shibata[3], Yuichi Aoki[1,6] ([1]ToMMo, Tohoku Univ., [2]National Institute of Genetics, [3]Kazusa DNA Res. Inst., [4]Sakura Sci., [5]Grad. Sch. Agr., Kyoto Univ., [6]Grad. Sch. Info. Sci., Tohoku Univ.)	Symposium S04 Artificial designs of plant-soil-microbe relationships stop global warming (14:00–17:00)	1pY05 Analysis of processing of the polycistronic tRNA-gRNA precursor that suppressor tRNA is used as a spacer Kazuhito Akama[1], Yasushi Yukawa[2] ([1]Dept. of Life Sci., Fac. of Life and Environ Sci., Shimane Univ., [2]Grad. Sch. of Life Sci., Nagoya City Univ.)	Symposium S05 Circadian and Seasonal Mechanisms in Plant Development and Physiology (14:00–17:00)	15:00
1pF06 Molecular regulatory mechanism of the ROS-producing enzymes, Rbohs, by phosphorylation of conserved serine residues and Ca^{2+} binding in land plants Takafumi Hashimoto[1], Kenji Hashimoto[1], Takuya Miyakawa[2], Masaru Tanokura[3], Kazuyuki Kuchitsu[1] ([1]Dept. Appl. Biol. Sci., Tokyo Univ. of Science, [2]Grad. Sch. Biostudies., Kyoto Univ., [3]Grad. Sch. Agri. and Life Sci., Univ. of Tokyo)	1pG06 Novel meristematic organ on the cauline leaf of *Rorippa aquatica* for vegetative reproduction Shuka Ikematsu[1,2], Ami Sasaki[1], Rumi Amano[1], Tomoaki Sakamoto[1,2], Seisuke Kimura[1,2] ([1]Faculty of Life Sciences, Kyoto Sangyo University, [2]Center for Ecological Evolutionary Developmental Biology, Kyoto Sangyo University)	1pH06 Study on DNA-Binding Property of the Key Transcription Factor that Prompts the Root Nodulation Shohei Nosaki[1,2,3], Momona Noda[2], Kenji Miura[1,2,3], Takuya Suzaki[1,2,3] ([1]Fac. of Life and Env. Sci., Univ. of Tsukuba, [2]Col. of Biol. Sci, Univ. of Tsukuba, [3]T-PIRC., Univ. of Tsukuba)	1pI06 SSBD:repository/database: global sharing of bioimaging data Koji Kyoda[1], Hiroya Itoga[1], Fangfang Wang[1,2], Yuki Yamagata[1,2], Yukako Tohsato[3], Shuichi Onami[1,2] ([1]RIKEN BDR, [2]RIKEN R-IH, [3]Ritsumeikan Univ.)		1pY06 E Precise *in planta* genome editing via homology-directed repair in wheat Weifeng Luo[1], Rintaro Suzuki[1], Ryozo Imai[1,2] ([1]Institute of Agrobiological Sciences, NARO, [2]Faculty of Life and Environmental Sciences, Univ. Tsukuba)		15:15
1pF07 Identification of Protein Kinases Involved in the Post-translational Regulation of the Stress-Responsive Transcription Factor DREB2A Touko Nakazawa[1], So Sugimoto[1], Ryosuke Takahashi[1], Haruho Funamori[1], Fuminori Takahashi[2], Norihito Nakamichi[3,4], Toshinori Kinoshita[3,4], Kazuo Shinozaki[2], Kazuko Yamaguchi-Shinozaki[1,5], Junya Mizoi[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Center for Sustainable Resource Science, RIKEN, [3]ITbM, Nagoya Univ., [4]Grad. Sch. Sci. Nagoya Univ., [5]Res. Inst. Agr. Life Sci., Tokyo Univ. Agr.)	1pG07 ABA-Induced Switch from Asymmetric Cell Division to Symmetric Cell Division in the Moss *Physcomitrium patens* Chiyo Jinno[1], Marcel Pascal Beier[2], Akihiko Hiroguchi[3], Kohei Nakamura[1], Yutaka Suzuki[4], Tomomichi Fujita[3] ([1]Grad. Sch. Life Sci., Univ. Hokkaido, [2]IAHE, Univ. Hokkaido, [3]Fac. Sci., Univ. Hokkaido, [4]Grad. Sch. Front. Sci., Univ. Tokyo)	1pH07 Study on an unknown region of NIN transcription factor Momona Noda[1], Hanna Nishida[2], Momoyo Ito[3], Takuya Suzaki[1,3,4] ([1]Bio., Univ. Tsukuba, [2]NARO, [3]Fac. Life. Sci., Univ. Tsukuba, [4]T-PIRC, Univ. Tsukuba)	1pI07 Reconstruction of a Nitrogen-Fixing Symbiosis in a Synthetic Biological Approach Shigeru Hanano[1,2], Hajime Tomatsu[2], Eiji Takita[2], Koichiro Otake[2], Marika Umetsuki[3], Hideki Hirakawa[2], Sachiko Isobe[2], Takashi Soyano[4], Takuya Suzaki[5], Yoshikazu Shimoda[6], Toshiki Uchiumi[3], Akiyoshi Tominaga[7], Hiroshi Masumoto[2], Masayoshi Kawaguchi[4], Daisuke Shibata[2], Shusei Sato[1] ([1]Graduate School of Life Sciences, Tohoku University, [2]Kazusa DNA Research Institute, [3]Department of Sciences, Kagoshima University, [4]Division of Symbiotic Systems, National institute for Basic Biology, [5]Faculty of Life and Environmental Sciences, Tsukuba University, [6]Institute of Agrobiological Sciences, National Agriculture and Food Research Organization, [7]Faculty of Agriculture, Department of Bioresource Sciences, Shizuoka UniversityDepartment of Bioresource Sciences, Shizuoka University)		1pY07 Highly efficient gene targeting using high-copy-number replicon in rice Satoru Sukegawa[1], Ayako Nishizawa-Yokoi[1], Seiichi Toki[1,2,3,4], Hiroaki Saika[1] ([1]Institute of Agrobiological Sciences, National Agriculture and Food Research Organization, [2]Graduate School of Nanobioscience, Yokohama City University, [3]Kihara Institute for Biological Research, Yokohama City University, [4]Department of Plant Life Science, Faculty of Agriculture, Ryukoku University)		15:30
1pF08 Functional analysis of salt stress tolerance by insect hormone in plants Kaori Sako[1,2], Suzuka Kurata[1], Ayaka Kimura[1], Mari Horiguchi[1], Huong Nguyen Mai[2], Akihiro Matsui[2], Maho Tanaka[2], Kyoko Mogami[3], Atsushi J. Nagano[3,4], Masahiro Tamoi[1], Motoaki Seki[2] ([1]Dep. Adv. Biosci., Kindai Univ., [2]CSRS, RIKEN, [3]Fac. Agri., Ryukoku Univ., [4]Inst. Adv. Biosci., Keio Univ.)	1pG08 E Regulation of developmental phase change in moss *Physcomitrium patens*, by KAI2-ligand signaling pathway Yi Luo, Yuki Hata, Junko Kyozuka (Graduate School of Life Sciences, Tohoku University)	1pH08 Genome-wide association study for symbiotic preference between *Lotus japonicus* and *Mesorhizobium* Masaru Bamba[1], Seishiro Aoki[2], Tadashi Kajita[3], Hiroaki Setoguchi[4], Yasuyuki Watano[5], Takashi Tsuchimatsu[6] ([1]Grad. Sci., Tohoku Univ., [2]Grad. Front. Sci., Univ. Tokyo, [3]TBRC, Univ. Ryukyus, [4]Grad. Human and Environ, Kyoto Univ., [5]Faculty of Sci., Chiba Univ., [6]Science, Univ. Tokyo)	1pI08 Prediction of Temperature Response of Field-Grown Plants Using Laboratory Transcriptome Data Natsuki Hayami[1], Miyako Kusano[2,3], Kyonoshin Maruyama[4], Atsushi J. Nagano[5], Mieko Higuchi[2], Kosuke Hanada[6], Minami Matsui[2], Yoshiharu Y. Yamamoto[1,2] ([1]United Sch. Agric. Sci., Gifu Univ., [2]CSRS, RIKEN, [3]Fac. Life and Env. Sci., Tsukuba Univ., [4]JIRCAS, [5]Fac. Agric., Ryukoku Univ., [6]Frontier Research Academy for Young Researchers, Kyushu Inst. of Tech.)		1pY08 Peptide-mediated chloroplast transformation and gene delivery into mitochondria by carbon nanotube modified with peptide Masaki Odahara[1], Simon Law[1], Yoko Horii[1], Keiji Numata[1,2] ([1]CSRS, RIKEN, [2]Grad. Sch. Eng., Kyoto Univ.)		15:45

E=Presentation in English

● Day 1, Wed., March 15, PM (14:00–17:00)

Time	Room A Photosynthesis	Room B Biomembrane/ Ion and solute transport	Room C Genome function/ gene regulation	Room D Specialized (secondary) metabolism	Room E Reproduction
16:00	1pA09 Interspecific comparison of the rate constants of photo-damage and repair of photosystem II between various woody species Shoko Tsuji[1], Kaori Kohzuma[2], Kumiko Ochiai[1], Kentaro Ifuku[1], Kouki Hikosaka[3] ([1]Grad. Sch. of Agric., Kyoto Univ., [2]Biol. Sci., Univ. Tokyo, [3]Grad. Sch. of Life Sci., Tohoku Univ.)	1pB09 Sucrose or gibberellin? —the dissecting role of SWEET13 Reika Isoda[1], Zoltan Palmai[1], Akira Yoshinari[1], Li-Qing Chen[2], Florence Tama[1,3,4], Wolf B. Frommer[1,5], Masayoshi Nakamura[1] ([1]ITbM, Nagoya Univ., [2]Dept. Plant Biol., Univ. Illinois, [3]Grad. Sch. Sci., Nagoya Univ., [4]R-CCS, Riken, [5]Mol. Physiol., HHU)	1pC09 [Cancelled]		1pE09 Establishing the method of live imaging of Marchantia zygote Sohta Nakamura[1], Yusuke Kimata[1], Yoshikatsu Sato[2,3], Minako Ueda[1] ([1]Grad. Sch. of Life Sci., Univ. Tohoku, [2]WPI-ITbM, Nagoya University, [3]Grad. Sch. Sci., Nagoya University)
16:15	1pA10 Higher Reduced State Of Fe/S-clusters, With The Suppressed Oxidation Of P700, Causes PSI Inactivation In *Arabidopsis Thaliana* Shu Maekawa[4], Riu Furutani[1,3], Shinya Wada[1,3], Kentaro Ifuku[2,3], Chikahiro Miyake[1,3] ([1]Grad. Sch. Agri. Sci., Univ. Kobe, [2]Grad. Sch. Agri. Sci., Univ. Kyoto, [3]CREST/JST, [4]Facul. Agri., Univ. Kobe)	1pB10 Transcriptome and hormone analysis of the *Arabidopsis* zinc transporter IAR1 mutant Miki Kawachi[1], Mikiko Kojima[2], Yumiko Takebayashi[2], Hitoshi Sakakibara[1,2] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]CSRS, RIKEN)	1pC10 Post-transcriptional regulation via poly(A) length control by Arabidopsis deadenylase, AtCCR4 Taku Tokunaka[1], Toshihiro Arae[1,2], Seidai Takamatsu[1], Atsushi Toyoda[3], Yukako Chiba[1,4] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Grad. Sch. Front. Sci., Univ. of Tokyo, [3]NIG, [4]Fac. Sci. Hokkaido Univ.)		1pE10 Function of adenylyl cyclase/cAMP phosphodiesterase gene, *CAPE*, in *Marchantia polymorpha* sperm Chiaki Yamamoto[1], Fumio Takahashi[1], Kazumasa Yamada[2], Shinya Yoshikawa[2], Noriyuki Suetsugu[3], Masahiro Kasahara[1] ([1]Grad. Sch. Life Sci., Ritsumeikan Univ., [2]Fac. Marine Sci. & Tech., Fukui Pref. Univ., [3]Grad. Sch. Arts & Sci., Tokyo Univ.)
16:30	1pA11 The iron-sulfur protein TCR regulates P700 oxidation by the photosynthetic cyclic electron transfer around PSI Fumiaki Sano, Trinh Mai Duy Luu, Shinji Masuda (Department of Life Science and Technology, Tokyo Institute of Technology)	1pB11 Identification and functional characterization of flavin transporters in plants Hikari Kuwata[1], Fumina Nagai[2], Takanori Maruta[1,2], Takahiro Ishikawa[1,2], Takahisa Ogawa[1,2] ([1]Grad. Sch. Nat. Sci. Technol., Shimane Univ., [2]Dept. Life Sci., Fac. Life Environ. Sci., Shimane Univ.)	1pC11 Multiple uORF-mediated light-dependent translational regulation in the Arabidopsis clock gene *LHY* Haruka Aoyama[1], Yuma Ise[1], Akinori Takahashi[2], Tadashi Yamamoto[2], Yukako Chiba[1,3] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]OIST, [3]Fac. Sci., Hokkaido Univ.)		1pE11 Functional analysis of a gene encoding EF-hand protein, Mp*CAPS*, in the sperm chemotaxis in *Marchantia polymorpha* Mizuki Morita[1], Katsuyuki T. Yamato[2] ([1]Graduate School of Biology-Oriented Science and Technology, [2]Faculty of Biology-Oriented Science and Technology)
16:45	1pA12 The novel *Arabidopsis* Rieske ISP mutation, *pgr1*^{E143K} alters the pH sensitivity of the Cyt b_6f complex Ryouhei Kobayashi, Toshiharu Shikanai (Grad. Sch. Sci., Kyoto Univ.)				1pE12 Mechanism of reproductive isolation in the liverwort genus *Marchantia* Yuka Ishii, Masaki Shimamura (Grad. Sch. Integ. Sci. for Life, Hiroshima Univ.)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/ Morphogenesis	Plant-organism interaction B	Systems biology		New tecnology		
1pF09 Genetic analyses of salt-tolerance mechanism in a salt-tolerant *Arabidopsis thaliana* Lch-0 Takuma Kajino[1], Kaori Uchiyama[1], Hirotaka Ariga[2], Akihisa Shinozawa[1], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri, [2]Res. Cent. of Gen. Res., NARO)	1pG09 Biochemical Studies on Transcription Elongation in *Arabidopsis* Ryuji Tsugeki[1], Yoko Ikeda[2], Hitoshi Mori[3] ([1]Grad. Sch. Sci., Kyoto Univ., [2]Inst. Plant Sci. Res., Okayama Univ., [3]Grad. Sch. Agric. Sci., Nagoya Univ.)	1pH09 Type III secretion system of *Bradyrhizobium* sp. SUTN9-2 prevents symbiosis with *Lotus* spp. Shun Hashimoto[1], Kohki Goto[2], Pongdet Pyromyou[3], Pongpan Songwattana[3], Teerana Greetatorn[3], Masahiro Fukuda[2], Cui Ying[1], Panlada Tittabutr[3], Nantakorn Boonkerd[3], Neung Teaumroong[3], Toshiki Uchiumi[2], Shusei Sato[1] ([1]Grad. Sch. of Life Sci., Univ. Tohoku, [2]Grad. Sch. of Sci. and Eng., Univ. Kagoshima, [3]Suranaree Univ. of Technol.)		Symposium S04 Artificial designs of plant-soil-microbe relationships stop global warming (14:00–17:00)	1pY09 Tomato Mosaic Virus Movement Protein Enhances Transient Expression of Recombinant Protein in the Stem of Tomato, *Solanum lycopersicum* Misaki Kobayashi, Martina Bianca Fuhrmann-Aoyagi, Akira Uto, Kenji Miura (Graduate School of Life and Earth Sciences, University of Tsukuba)	Symposium S05 Circadian and Seasonal Mechanisms in Plant Development and Physiology (14:00–17:00)	16:00
1pF10 Ⓔ Transgenerational salt plasticity improves the salinity-tolerance capacity of salt-sensitive-offspring in rice (*Oryza sativa* L.) Murat Aycan[1], Lutfun Nahar[2], Marouane Baslam[1], Toshiaki Mitsui[1] ([1]Laboratory of Biochemistry, Faculty of Agriculture, Niigata University, Niigata, Japan., [2]Department of Life and Food Sciences, Graduate School of Science and Technology, Niigata University, Niigata, Japan.)	1pG10 Ⓔ *TAWAWA1* regulates meristem phase transition through transcription repression of *FZP* in rice Haowen Wang[1], Hiroki Tokunaga[1,2], Andree Sunanjaya Kusnandar[1], Masashi Shindo[1], Yiling Miao[1], Junko Kyozuka[1] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]CSRS, RIKEN)	1pH10 Regulation of host cell response by Rhizobial type III effector during the symbiotic nodulation Satoshi Takahashi, Oura Miyauchi, Masato Araragi, Yasuyuki Kawaharada (Facul. of Agri., Iwate Uni.)			1pY10 Ⓔ Application of in planta transformation of Kalanchoe species Yuhan Guo[1], Masaaki K. Watahiki[1,2] ([1]Grad. Sch., Life. Sci., Univ. Hokkaido, [2]Div. BioSci., Fac. Sci., Univ. Hokkaido)		16:15
1pF11 Complete loss of RelA-SpoT homologs triggers overaccumulation of salicylic acid in plant cells Takanari Nemoto[1], Masataka Inazu[1], Sae Suzuki[1], Sumire Ono[1], Yuri Kanno[2], Mitsunori Seo[2], Akira Oikawa[3], Shinji Masuda[1] ([1]Dep. Life Sci. Tech. Tokyo Tech, [2]RIKEN, CSRS, [3]Grad. Sch. Agr., Kyoto Univ.)	1pG11 The function of JINGASA transcription factor in stem cell zone in *Marchantia polymorpha* Go Takahashi, Tomohiro Kiyosue, Yuki Hirakawa (Grad. Sch. Sci., Gakushuin Uni.)				1pY11 Ⓔ Transient expression using the Tsukuba System in soybean Martina Bianca Fuhrmann-Aoyagi[1], Misaki Kobayashi[1], Kenji Miura[1,2] ([1]Graduate School of Life and Earth Sciences, University of Tsukuba, [2]Tsukuba-Plant Innovation Research Center, University of Tsukuba)		16:30
1pF12 Identification of chemical compound enhancing tolerance for environmental stresses in *Humulus lupulus* Takeshi Hirakawa, Seia Tanno (Kirin Central Research Institute, Kirin Holdings Company, Ltd.)	1pG12 Roles and downstream gene networks of Rboh-mediated ROS production in cell division pattern and cell cycle progression in *Marchantia polymorpha* Yuto Yamashita[1], Yuki Hagiwara[1], Kenji Hashimoto[1], Hidemasa Suzuki[2], Ryuichi Nishihama[1], Kazuyuki Kuchitsu[1] ([1]Dept. Appl. Biol. Sci., Tokyo Univ. of Science, [2]Grad. Sch. of Life Sci., Tohoku Univ.)						16:45

Ⓔ=Presentation in English

● Day 2, Thu., March 16, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D	Room E
	Photosynthesis	Biomembrane/Ion and solute transport	Organelles/Cytoskeleton	Specialized (secondary) metabolism	Reproduction
09:00	2aA01 Functional analysis of an essential gene in cyanobacteria that is conserved among oxygen-evolving photosynthetic organisms Yoshiki Shirotori[1], Kimie Atsuzawa[2], Egi Tritya Apdila[3], Yasuko Kaneko[2], Koichiro Awai[3], Shigeki Ehira[1] ([1]Graduate school of Science, Tokyo Metropolitan University, [2]Graduate School of Science and Engineering, Saitama University, [3]Graduate School of Science and Technology, Shizuoka University)	2aB01 Analysis of the low-Mg rice mutant and identification of the causal gene, *OsRZF1* Natsuko I. Kobayashi[1], Hiroki Takagi[2], Xiaoyu Yang[1], Ayako Nishizawa-Yokoi[3], Tenta Segawa[2], Tatsuaki Hoshina[1], Takayuki Ohnishi[4], Hisashi Suzuki[5], Ren Iwata[6], Seiichi Toki[3,7,8], Tomoko M. Nakanishi[1], Keitaro Tanoi[1] ([1]Grad. Sch. Agric. Life Sci., Univ. Tokyo, [2]Ishikawa Pref. Univ., [3]NARO, [4]Utsunomiya Univ., [5]QST, [6]CYRIC, Tohoku Univ., [7]Ryukoku Univ., [8]Yokohama City Univ.)	2aC01 E A novel introgression of rice mitochondrial genome into wheat genome through IVF system Tety Maryenti[1], Shizuka Koshimizu[3,4], Kentaro Yano[3], Takayoshi Ishii[2], Takashi Okamoto[1] ([1]Grad. Sch. Sci., Tokyo Met. Univ., [2]Arid Land Res. Cent., Tottori Univ., [3]Sch. Agr., Meiji Univ., [4]Dept. Informatics, NIG)	2aD01 Thin layer chromatography of pigments extracted from nuts of *Ginkgo biloba* 'Kinbei' Yoshie Uchida[1], Kazuma Kagamiyama[1], Kazuhito Inoue[2,3], Koichi Tsutsumi[1], Hidenobu Uchida[1,2] ([1]Dept. Food Business, Nagoya Bunri Univ., [2]Res. Inst. Integ. Sci., Kanagawa Univ., [3]Dep. Biol. Sci., Kanagawa Univ.)	2aE01 E The plant-specific *Arabidopsis* VPS13a mediates polarized vesicle trafficking during pollen germination Surachat Tangpranomkorn[1], Motoko Igarashi[2], Fumiko Ishizuna[3], Yoshinobu Kato[1,4], Takamasa Suzuki[5], Sota Fujii[1,6], Seiji Takayama[1] ([1]Graduate School of Agricultural and Life Sciences, University of Tokyo, Tokyo, [2]Graduate School of Biological Sciences, Nara Institute of Science and Technology, Nara, [3]Department of Human Life Science and Design, Faculty of Contemporary Human Life Science, Tokyo Kasei Gakuin University, Tokyo, [4]JST, PRESTO, [5]Graduate School of Bioscience and Biotechnology, Chubu University, Aichi, [6]Suntory Rising Stars Encouragement Program in Life Sciences)
09:15	2aA02 Iron and Light-regulated Phycobilisome Production in the Cyanobacterium *Leptolyngbya* sp. PCC 6406 Mutsumi Kubushiro, Takuto Otsu, Toshihiko Eki, Yuu Hirose (App. Chem. and Life Sci., Toyohashi Univ. of Tech.)	2aB02 Identification of a long-distance signaling protein for regulating Si uptake in rice Naoki Yamaji, Namiki Mitani-Ueno, Noriyuki Konishi, Jian Feng Ma (IPSR, Okayama Univ.)	2aC02 Role of mitochondrial RNA editing in heavy metal tolerance of *Arabidopsis thaliana* Fumiaki Asahi, Koki Misawa, Riho Sawai, Izumi Yotsui, Teruaki Taji, Yoichi Sakata (Dept. of Biosci., Tokyo Univ. of Agri.)	2aD02 E Changes in free volatile compounds of different tomato cultivars fruits which grow in different years Yingtao Li[1], Yusuke Kamiyoshihara[2], Yusuke Aono[1], Denise Tieman[3], Harry Klee[3], Miyako Kusano[4,5,6] ([1]Degree Programs in Life and Earth Sciences, University of Tsukuba, [2]College of Bioresource Sciences, Nihon University, [3]Department of Horticultural Sciences, University of Florida, [4]Faculty of life and environment science, University of Tsukuba, [5]Tsukuba Plant Innovation Research Center, University of Tsukuba, [6]RIKEN Center for Sustainable Resource Science)	2aE02 A stylar cysteine-rich peptide confers a multi-phase reproductive barrier in *Arabidopsis thaliana* Hiroki Miura[1], Yuka Kimura[1], Yuko Wada[2], Seiji Takayama[1], Sota Fujii[1,3] ([1]Grad. Sch. Agric. Life Sci, Univ. Tokyo, [2]Grad. Sch. Bio Sci, Nara Institute of Science and Technology, [3]Suntory Rising Stars Encouragement Program in life Sciences)
09:30	2aA03 Analysis of structural changes in cyanobacterial phycobilisomes during chromatic acclimation Takuto Otsu[1], Haruka Kawabata[3], Mutsumi Kubushiro[4], Chihong Song[2], Toshihiko Eki[1], Kazuyoshi Murata[2], Yuu Hirose[1] ([1]Toyohashi Univ. of Tech., [2]Exploratory Research Center on Life and Living Systems (ExCELLS), [3]The Graduate University for Advanced Studies, SOKENDAI, [4]Toyohashi Univ. of Tech.)	2aB03 Ionomics of Arabidopsis Guttation Droplets by ICP-MS Hiroki Yagi[1], Yoshiki Yoshida[2], Iori Mihara[2], Tsuneaki Takami[3], Wataru Sakamoto[3], Tomoo Shimada[4], Ikuko Hara-Nishimura[2], Haruko Ueda[1,2] ([1]Grad. Sch. Nat. Sci., Konan Univ., [2]Fac. Sci. Engin., Konan Univ., [3]Inst. Plant Sci. Res., Okayama Univ., [4]Grad. Sch. Sci., Kyoto Univ.)	2aC03 Tissue-specific expression of a dominant-negative *ACTIN8* suppresses organ straightening in Arabidopsis Yuzuki Miyake[1], Hiroki Yagi[1,2], Koichi Toyokura[3], Tomoo Shimada[4], Ikuko Hara-Nishimura[2], Haruko Ueda[1,2,5] ([1]Grad. Sch. Nat. Sci., Konan Univ., [2]Fac. Sci. Engin., Konan Univ., [3]GRA&GREEN, [4]Grad. Sch. Sci., Kyoto Univ., [5]Institute for Integrative Neurobiology, Konan University)	2aD03 Pathway-scale genome editing provides a detailed understanding of carotenoid biosynthesis in *Euglena gracilis* Shun Tamaki[1], Toshihisa Nomura[1,2], Marumi Ishikawa[1], Koji Yamada[1,3], Kengo Suzuki[1,3], Keiichi Mochida[1,2,4,5] ([1]RIKEN BZP, [2]RIKEN CSRS, [3]euglena Co., Ltd., [4]Yokohama City Univ., [5]Nagasaki Univ.)	2aE03 Exploring the regulatory mechanisms of pollen receptor signaling mediated by activator RopGEFs for pollen tube function in *Arabidopsis thaliana* Nozomi Naiki[1], Tetsuya Higashiyama[2], Hidenori Takeuchi[3] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Grad. Sch. Sci., Univ. Tokyo, [3]ITbM, Nagoya Univ.)
09:45	2aA04 Control of intracellular pH through light-dependent H^+ extrusion/uptake across the cytoplasmic membranes of the cyanobacterium *Synechocystis* sp. PCC6803 Akane Echigo[1], Haruya Inago[1], Kumiko Kondo[2], Toru Hisabori[1,2], Shinji Masuda[1] ([1]Grad. Sch. Sci and Tech., Tokyo Tech, [2]Lab. Chem. Life Sci., Tokyo Tech)	2aB04 Guttation Droplets from Arabidopsis Hydathodes Contain Secretory Proteins Yoshiki Yoshida[1], Iori Mihara[1], Emi Mishiro-Sato[2], Shinya Sato[2], Keiko Kano[2], Tomoo Shimada[3], Ikuko Hara-Nishimura[1], Haruko Ueda[1,4], Hiroki Yagi[4] ([1]Fac. Sci. Engin., Konan Univ., [2]WPI-ITbM, Nagoya Univ., [3]Grad. Sch. Sci., Kyoto Univ., [4]Grad. Sch. Nat. Sci., Konan Univ.)	2aC04 Expression analysis of *MYOSIN XIf* during inflorescence stem elongation in *Arabidopsis* Satoko Okamura[1], Anju Hayashi[1], Hiroki Yagi[2], Ikuko Hara-Nishimura[2], Haruko Ueda[1,2] ([1]Fac. Sci. Engin., Konan Univ., [2]Grad. Sch. Nat. Sci., Konan Univ.)	2aD04 A similar regulation mechanism of the regio-specificity among independently evolved plant aromatic prenyltransferases Junwen Han[1], Ryosuke Munakata[1], Hironobu Takahashi[2], Takao Koeduka[3], Alain Hehn[4], Kazufumi Yazaki[1] ([1]RISH · Kyoto Univ, [2]Tokushima Bunri Univ, [3]Yamaguchi Univ, [4]Univ of Lorraine/INRAE)	2aE04 Transcriptomic and functional analysis of genes expressed in female gametophyte Masahiro Kanaoka (Faculty of Bioresource Sciences, Prefectural University of Hiroshima)
10:00	2aA05 Dual Redox Regulation of the DNA-Binding Activity of the Response Regulator RpaB in the Cyanobacterium *Synechocystis* sp. PCC 6803 Kazuki Iwata[1], Naoki Kato[1], Taro Kadowaki[1], Kintake Sonoike[2], Yukako Hihara[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Fac. Edu. Int. Arts. Sci., Waseda Univ.)	2aB05 E SEN1 is responsible for molybdate transport into nodule symbiosomes for nitrogen fixation in *Lotus japonicus* Qingnan Chu[1], Tsuneo Hakoyama[2], Makoto Hayashi[2], Kiminori Toyooka[2], Mayuko Sato[2], Takehiro Kamiya[1], Toru Fujiwara[1] ([1]Grad. Sch. Agric. Life Sci. Univ. Tokyo, [2]RIKEN CSRC)	2aC05 *Arabidopsis thaliana* Subclass I Actin Depolymerizing Factors Regulate Nuclear Structure and Gene Expression Tomoko Matsumoto[1], Takumi Higaki[2], Hirotomo Takatsuka[3], Natsumaro Kutsuna[4], Yoshiyuki Ogata[5], Seiichiro Hasezawa[6], Masaaki Umeda[7], Noriko Inada[5] ([1]Osaka Pref. Univ., Grad. Schl. Life and Environ. Sci., [2]Kumamoto Univ. Grad. Schl. of Sci. and Tech., [3]Kanazawa Univ. Schl. of Biol. Sci. and Tech., [4]LPIXEL, [5]Osaka Metropolitan Univ., Schl. of Agri., [6]Hosei Univ., Grad. Schl. of Sci. and Eng., [7]NAIST, Grad. Schl. of Sci. and Tech.)	2aD05 Characterization of a UbiA prenyltransferase gene cluster involved in coumarin metabolism in citrus Shuhei Matsushita[1], Ryosuke Munakata[1,2], Tetsuya Matsukawa[3,4], Alain Hehn[5], Kazufumi Yazaki[1] ([1]RISH, Kyoto Univ., [2]JST-PRESTO, [3]The Experimental Farm, Kindai Univ., [4]BOST, Kindai Univ., [5]Univ. Lorraine-INRAE)	2aE05 Analysis of the endoplasma membrane enclosing the sperm cells in pollen Naoya Sugi[1], Rie Izumi[1], Daichi Susaki[1], Kazuo Ebine[2], Tetsu Kinoshita[1], Daisuke Maruyama[1] ([1]Yokohama City University Kihara Institute for Biological Research, [2]National Institute for Basic Biology)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/Morphogenesis	Plant-organism interaction A	New technology				
2aF01 Functions of miRNAs upon dormancy induction by short-day in poplar root Shinya Hirooka, Kimiyo Ono, Moritaro Matsuzawa, Jun Furukawa, Michiyuki Ono, Shinobu Satoh (Grad. Life Env. Sci., Univ. Tsukuba)	2aG01 Comparative analysis of sexual differentiation mechanism between monoicous and dioicous liverworts Yukiko Yasui[1], Tomoha Tanaka[1], Chikako Inoue[1], Masaki Shimamura[2], Takayuki Kohchi[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]Grad. Sch. Integ. Sci. Life, Hiroshima Univ.)	2aH01 Fungal hacking of the plant sex-determination pathway via suppression of *AGL24* in *Silene latifolia* Naoko Fujita, Takashi Akagi (Grad. Sch. Environ. Life Sci., Okayama Univ.)	2aI01 Establishment of live-cell imaging technique to track H3K4me3 in *Arabidopsis thaliana* Megumi Matsuoka[1], Takuya Sakamoto[2], Mio Shibuta K.[3], Yuko Sato[4], Hiroshi Kimura[4], Sachihiro Matsunaga[1] ([1]Dept. of Integr. Biosci., Grad. Sch. of Front. Sci., Univ. of Tokyo, [2]Dept. of Appl. Biol. Sci., Fac. of Sci. and Tech., Tokyo Univ. of Sci., [3]Fac. of Sci., Yamagata Univ., [4]Inst. of Innov. Res., Tokyo Inst. of Tech.)	Symposium S06 A look at the world of environmental stress through the perspective of P700 oxidation (9:00–11:10)	The 19th Database Workshop (9:00–12:00)	Symposium S07 Japan-Singapore Binational Symposium: Plant Science & Precision Agriculture (9:00–11:50)	09:00
2aF02 Development of a microfluidic device to detect miRNA for diagnosis of nutritional stress in plants Yaichi Kawakatsu[1], Michitaka Notaguchi[1,2] ([1]Bioscience and Biotechnology Center, Nagoya University, [2]Graduate School of Bioagricultural Sciences, Nagoya University)	2aG02 MpBZR3 regulates gametangium development in *Marchantia polymorpha* Tomoyuki Furuya[1,2], Natsumi Saegusa[3], Shohei Yamaoka[3], Chiaki Yamamoto[1], Shunji Shimadzu[2,4], Naoki Minamino[5], Ryuichi Nishihama[3,6], Kimitsune Ishizaki[2], Takashi Ueda[5], Hidehiro Fukaki[2], Takayuki Kohchi[3], Masahiro Kasahara[1], Hiroo Fukuda[4,7], Takashi Araki[3], Yuki Kondo[2] ([1]Col. Sch. Sci., Ritsumeikan Univ., [2]Grad. Sch. Sci., Kobe Univ., [3]Grad. Sch. Biostudies, Kyoto Univ., [4]Grad. Sch. Sci., Univ. Tokyo, [5]Div. Cellular Dynamics, NIBB, [6]Fac. Sci. Tech., Tokyo Univ. Sci., [7]Fac. Bioenv. Sci., KUAS)	2aH02 Effects of cold temperature on virus-induced growth inhibition and transcriptome response of *Arabidopsis halleri* Mie N. Honjo[1], Naoko Emura[1,2], Mari Kamitani[1,3], Hiroshi Kudoh[1] ([1]CER, Kyoto Univ., [2]Fac. Agri., Kagoshima Univ., [3]CiRA_F, Kyoto Univ.)	2aI02 Evaluation of topology of membrane proteins in living plant cells by bioimaging Kohji Nishimura, Suzuna Namba, Mai Miyatake, Shohei Yoshida (Fac. Life Env. Sci., Shimane Univ)				09:15
2aF03 Identification of *NRT2*-like Genes and MADS-box Transcription Factor Genes Induced by High pH Condition in the Root Tip of Barley Akari Miyauchi, Kyoko Higuchi, Akihiro Saito (Grad. Sch. Dept. Agric. Chem., TUA)	2aG03 Role of miR529c-*SPL2* module in reproductive transition in *Marchantia polymorpha* Sae Anada, Yuki Tomita, Keisuke Inoue, Shohei Yamaoka, Takashi Araki (Grad. Sch. Bio., Univ. Kyoto)	2aH03 Effects of Turnip mosaic virus on *Arabidopsis halleri*-aphid interaction and the exploration of its causal genes Miyabi Otsubo, Hiroshi Kudoh, Mie N. Honjo (CER, Kyoto Univ.)	2aI03 Organellar Glue: A Molecular Tool to Artificially Control Chloroplast−Chloroplast Interactions Shintaro Ichikawa[1,2], Shota Kato[1], Yuta Fujii[1], Kazuya Ishikawa[1,3], Keiji Numata[4,5], Yutaka Kodama[1,2,5] ([1]Ctr. Biosci. Res. Educ., Utsunomiya Univ., [2]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ., [3]Grad. Sch. Med. Dent. Pharm., Okayama Univ., [4]Grad. Sch. of Eng., Kyoto Univ., [5]CSRS, RIKEN)				09:30
2aF04 A Unit Of Two *Cis*-elements Regulating Light/Cold/UV-B Stress Responses In Arabidopsis Kana Mitai[1], Samson Ezeh Okechukwu[2], Natsuki Hayami[2], Wasei Kodama[1], Hiziri Iuchi[3], Yoshiharu Y. Yamamoto[1,2,4,5] ([1]Grad. Sch. Nat. Sci. Tech., Univ. Gifu, [2]UGSAS., Univ. Gifu, [3]BRC., Riken, [4]Fac. Appl. Biol. Sci., Univ. Gifu, [5]CSRS., Riken)	2aG04 Role of ROP signaling in the growth and organogenesis of *Marchantia polymorpha* Yuuki Sakai[1], Hiroki Yonetsuka[1], Aki Ueno[1], Hirotaka Kato[1,2], Tetsuro Mimura[1,3,4], Yuki Kondo[1], Hidehiro Fukaki[1], Kimitsune Ishizaki[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Grad. Sch. Sci. Eng., Ehime Univ., [3]Grad. Sch. Agri. Life Sci., Tokyo Univ., [4]Biosci. Biotech., National Cheng Kung Univ.)	2aH04 Ⓔ Response and Resistance of Rice towards rice pest Golden Apple Snail Mafrikhul Muttaqin[1,2], Songkui Cui[1], Yoichi Yusa[3], Satoko Yoshida[1] ([1]Plant Symbiosis Laboratory, Graduate School of Science and Technology, Nara Institute of Science and Technology, [2]Department of Biology, Faculty of Mathematics and Natural Sciences, IPB University, [3]Laboratory of Aquatic Ecology, Nara Women's University)	2aI04 Artificial manipulation of plant metabolome by using the organellar glue technique Kazuya Ishikawa[1,2], Makoto Kobayashi[3], Miyako Kusano[3,4,5], Keiji Numata[3,6], Yutaka Kodama[1,3] ([1]Ctr. Biosci. Res. Educ., Utsunomiya Univ., [2]Grad. Sch. Med. Dent. Pharm., Okayama Univ., [3]RIKEN CSRS, [4]Grad. Sch. of Life & Env. Sci., Univ. Tsukuba, [5]T-PIRC, Univ. Tsukuba, [6]Dept. Eng., Kyoto Univ.)				09:45
2aF05 Growth conditions for the dwarf phenotype of *picc* and *picl*, temperature-insensitive mutants Takato Matsumoto[1], Yuu Kanda[1], Tsuyoshi Furumoto[1,2] ([1]Grad. Sch. Agr. Ryukoku. Univ., [2]Facu. Agr Ryukoku. Univ)	2aG05 Roles of TCP genes in the regulation of cell expansion during leaf development Tomotsugu Koyama[1], Nobutaka Mitsuda[2], 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]Bioproduction Research Institute, AIST, [3]CSRS, RIKEN, [4]Grad. Sch. Science, Nagoya Univ., [5]ITbM, Nagoya Univ., [6]Div. Biol. Sci, NAIST, [7]Center for Digital Green-innovation, NAIST, [8]Grad. Sch. Sci. Eng., Saitama Univ.)	2aH05 Natural variation on a C2H2 zinc finger protein makes glabrous leaf/stem phenotypes in NBRP wild tomato (*Solanum pimpinellifolium*) collection Koichi Sugimoto, Rika Nakajima, Tohru Ariizumi, Hiroshi Ezura (Univ. Tsukuba, T-PIRC)	2aI05 Remote monitoring of physiological responses using tiny sensors in plants Kaori Kohzuma[1,2], Ko-ichiro Miyamoto[3] ([1]NINS, Astrobiology Center, [2]The University of Tokyo, Dept. Bio. Sci., [3]Tohoku University, Dept. Electronic Eng.)				10:00

Ⓔ=Presentation in English

● Day 2, Thu., March 16, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D	Room E
	Photosynthesis	Biomembrane/Ion and solute transport	Organelles/Cytoskeleton	Specialized (secondary) metabolism	Reproduction
10:15	2aA06 Analysis of Partner-Switching Phosphatases in *Synechocystis* sp. PCC 6803 Haruna Kakuta[1], Riku Nakamura[2], Yukako Hihara[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Fac. Sci., Saitama Univ.)	2aB06 Neck Strip, a Lignin-Based Novel Structure, Acts as an Apoplastic Barrier in Cucumber Glandular Trichome Hao Ning[1], Tao Wu[2], Toru Fujiwara[1], Takehiro Kamiya[1] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Hunan Agr. Univ.)	2aC06 E Actin isovariant ACT2-mediated cellular auxin homeostasis regulates lateral root organogenesis Aya Hanzawa[1], Marika Yamauchi[2], Abidur Rahman[1,2,3] ([1]U. Grad. Sch. Agri. Sci., Iwate Univ., [2]Grad. Sch. Arts and Sci., Iwate Univ., [3]Dept. of Plant Biosci., Faculty of Agri., Iwate Univ.)	2aD06 Identification of a novel hatching factor for potato cyst nematode, solanoeclepin B, and investigation of its biosynthesis Ryota Akiyama[1], Kosuke Shimizu[1], Itaru Sakata[2], Atsuhiko Kushida[2], Bunta Watanabe[3], Keiji Tanino[4], Yukihiro Sugimoto[1], Masaharu Mizutani[1] ([1]Graduate School of Agricultural Science, Kobe University, [2]Hokkaido Agricultural Research Center, NARO, [3]The Jikei University School of Medicine, [4]Department of Chemistry, Faculty of Science, Hokkaido University)	2aE06 A possible molecular mechanism for directional growth of pollen tubes devoid of the nuclei from the apical cytoplasm Kazuki Motomura[1,2], Naoya Sugi[3], Atsushi Takeda[1], Shohei Yamaoka[4], Daisuke Maruyama[3] ([1]Col. of Life Sci., Ritsumeikan Univ., [2]PRESTO, JST, [3]Kihara Inst. Biol. Res., Yokohama City Univ., [4]Grad. Sch. Biostudies, Kyoto Univ.)
10:30	2aA07 Acyl plastoquinol is a major substance that co-migrates with triacylglycerol in cyanobacteria Natsumi Mori-Moriyama[1,2], Toru Yoshitomi[1,3], Naoki Sato[1] ([1]Univ. Tokyo, [2]Ryukoku Univ., [3]Nat. Inst. Mat. Sci.)	2aB07 Leaf position and season-dependent changes in transcriptome 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[1,4,5], Atsushi J. Nagano[6,7] ([1]Grad. Sch. Agri. Life Sci. UTokyo, [2]College of Science and Engineering, Aoyama Gakuin Univ., [3]RISH, Kyoto Univ., [4]Grad. Sch. Sci., Kobe Univ., [5]College of Bioscience and Biotechnology, National Cheng Kung Univ., [6]Faculty of Agriculture, Ryukoku Univ., [7]IAB, Keio Univ.)	2aC07 Confined microtubule assembly shapes three-dimensional cell wall structures in xylem vessels Takema Sasaki[1], Kei Saito[2,3], Daisuke Inoue[4], Yuki Sugiyama[5], Yuta Shimamoto[2,3], Yoshihisa Oda[1] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Dep. Chrom. Sci., NIG, [3]Dep. Genetics, SOKENDAI, [4]Fac. Design, Kyushu Univ., [5]Sainsbury Lab., Cambridge Univ.)	2aD07 Single cell analysis for elucidation of natural rubber biosynthesis mechanism using rubber suspension cells Emiko Okubo-Kurihara[1], Emi Osada[1], Yuko Makita[1,2], Mika Kawashima[1], Hiroko Tsuchida[1], Ayato Sato[3], Naoya Kadofusa[3], Nanako Katou[3], Mayuko Satou[1], Mayumi Wakazaki[1], Kiminori Toyooka[1], Yuki Hamamura[4], Minami Matsui[1] ([1]RIKEN · CSRS, [2]Maebashi Institute of Technology, [3]Nagoya University · ITbM, [4]University of Hamburg)	2aE07 E Rboh-mediated ROS production plays an important role in initiation and progression of male meiosis in rice (*Oryza sativa. L*) Harsha Somashekar[1,2], Hidetaka Kaya[3], Shigeru Hanamata[4], Takamitsu Kurusu[5], Kazuyuki Kuchitsu[4], Ken-ichi Nonomura[1,2] ([1]Plant Cytogenetics Laboratory, National Institute of Genetics, [2]School of Life sciences, The Graduate University for Advanced studies (SOKENDAI), [3]Graduate School of Agriculture, Ehime University, [4]Department of Applied Biological Science, Tokyo University of Science, [5]Department of Mechanical and Electrical Engineering, Suwa University of Science)
10:45	2aA08 Chain length of fatty acids affects photoinhibition of PSII in cyanobacteria Kazuki Kurima, Haruhiko Jimbo, Masakazu Saito, Hajime Wada (Grad. Sch. Arts Sci., Univ. Tokyo, Japan)		2aC08 Interactors of NIMA-related kinase regulating growth polarity of rhizoids Hikari Mase[1], Hirofumi Nakagami[2], Taku Takahashi[1], Hiroyasu Motose[1] ([1]Grad. Sch. Nat. Sci., Okayama Univ., [2]Max Planck Institute for Plant Breeding Research)	2aD08 Solubilization of natural rubber biosynthetic enzyme complexes from rubber particles of the Para rubber tree (*Hevea brasiliensis*) by the amphiphilic copolymer treatments Nadia Nur Shazana Binti Abu Talib Khan[1], Koji Kojima[1], Haruhiko Yamaguchi[4], Tomoyo Mikami[1], Miki Suenaga-Hiromori[1], Toshiyuki Waki[1], Yukino Miyagi[4], Satoshi Yamashita[2], Yuzuru Tozawa[3], Toru Nakayama[1], Seiji Takahashi[1] ([1]Grad. Sch. Eng., Tohoku Univ., [2]Grad. Sch. Natural Sci. Tech., Kanazawa Univ., [3]Grad. Sch. Sci. Eng., Saitama Univ., [4]Sumitomo Rubber Ind., Ltd.)	2aE08 KNS21 regulating the formation of COPII-coated vesicles plays an important role in Arabidopsis pollen exine development Saki Nabeta[1], Nozomi Ueki[1], Kota Matsuoka[1], Tsuyoshi Nakagawa[2], Sumie Ishiguro[1] ([1]Bio-Agric. Sci., Nagoya Univ., [2]Dep. Mol. Func. Genomics, Shimane Univ.)
11:00	2aA09 Effect of the Δ7 and Δ9 unsaturated fatty acids in *Synechocystis* sp. PCC 6803 on the acclimation to low temperature Asuka Kobayashi[1,2], Michal Hubáček[2], Yagut Allahverdiyeva[2], Iwane Suzuki[3] ([1]Grad. Sch. Sci. and Tech, Univ. Tsukuba, [2]University of Turku, Turku, Finland, [3]Fac. Life Environ. Sci., Univ. Tsukuba)		2aC09 Correlation Analysis Between Intracellular Positioning and Morphology of Organelles Based on the 3D Reconstructed Images Keiko Midorikawa[1], Yutaka Kodama[1,2], Keiji Numata[2,3] ([1]Ctr. Biosci. Res. Educ., Utsunomiya Univ, [2]CSRS, Riken, [3]Grad. Sch. Eng., Kyoto Univ)	2aD09 Induction of MIA metabolism in seed germination of *Catharanthus roseus* Mai Uzaki[1,2], Tetsuya Mori[2], Mayuko Sato[2], Mayumi Wakazaki[2], Kotaro Yamamoto[3], Akio Murakami[4], Kiminori Toyooka[2], Tetsuro Mimura[4,5,6], Masami Yokota Hirai[1,2] ([1]Grad. Sch. Agricul. Sci., Nagoya Univ., [2]RIKEN CSRS, [3]Sch. Sci., Yokohama City Univ., [4]Grad. Sch. Sci., Kobe Univ., [5]Grad. Sch. Agricul. Life Sci., UTokyo, [6]Col. Biosci. Biotech., National Cheng Kung Univ.)	2aE09 Jasmonic acid–mediated networks activate autophagic machinery for petal abscission in *Arabidopsis* Yuki Furuta, Nobutoshi Yamaguchi, Toshiro Ito (Grad. Sch. Sci and Tech., NAIST)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/Morphogenesis	Plant-organism interaction A	New technology				
2aF06 Analysis of transcriptional regulatory mechanisms of temperature-stress inducible genes mediated by clock-related transcription factors in Arabidopsis Satoshi Kidokoro[1,2], Izumi Konoura[2], Kentaro Hayashi[2], Fumiyuki Soma[2], Takamasa Suzuki[3], Takuya Miyakawa[2,4], Masaru Tanokura[2], Kazuo Shinozaki[5], Kazuko Yamaguchi-Shinozaki[2,6] ([1]Sch. of Life Sci. and Tech., Tokyo Tech, [2]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [3]Biosci. Biotech., Chubu Univ., [4]Grad. Sch. of Biostudies, Kyoto Univ., [5]Center for Sustainable Resource Science, RIKEN, [6]Res. Inst. Agr. Life Sci., Tokyo Univ. Agr.)	2aG06 Ⓔ 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)	2aH06 Isolation and analysis of *chitin-induced cell death* (*ccd*) *mutants* of *Physcomitrium patens* Takeru Ichihashi, Yuki Ambe, Teruaki Taji, Yoichi Sakata, Izumi Yotsui (Dept. Bio. Sci., Tokyo Univ. of Agriculture)	2aI06 Development of a Novel Detection Method Targeting an Ultrashort 25 bp Sequence Found in *Agrobacterium*-Mediated Transformed GM Plants Reona Takabatake[1], Mari Onishi[2], Yasutaka Minegishi[3], Satoshi Futo[2], Keisuke Soga[4], Norihito Shibata[4], Kosuke Nakamura[4], Kazunari Kondo[4], Junichi Mano[1], Kazumi Kitta[1] ([1]National Agriculture and Food Research Organization, [2]Fasmac Co., Ltd., [3]NIPPON GENE Co., Ltd., [4]National Institute of Health Sciences)	Symposium S06 A look at the world of environmental stress through the perspective of P700 oxidation (9:00–11:10)	The 19th Database Workshop (9:00–12:00)	Symposium S07 Japan-Singapore Binational Symposium: Plant Science & Precision Agriculture (9:00–11:50)	10:15
2aF07 Analysis of cold stress-specific degradation mechanisms in Arabidopsis circadian clock factors Naoki Okawa[1], Fuminori Takahashi[2,3], Junya Mizoi[1], Kazuo Shinozaki[3], Kazuko Yamaguchi-Shinozaki[4], Satoshi Kidokoro[5] ([1]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [2]Faculty of Advanced engineering, Tokyo Univ. of Science, [3]Center for Sustainable Resource Science, RIKEN, [4]Inst. Agr. Life Sci., Tokyo Univ. Agr, [5]Sch. of Life Sci. and Tech., Tokyo Tech)	2aG07 Expression pattern of FbDOF1A transcription factor during leaf development in C_4 *Flaveria bidentis* Yuri Munekage[1], Tomoyo Ono[1], Mei Osawa[1], Ken Okudono[1], Yukimi Taniguchi[1], Tammy Sage[2] ([1]Kwansei Gakuin Univ., Sch. Bio. & Env. Sci., [2]Dep. Eco. & Evo. Bio, Univ. of Toronto)	2aH07 Sugar stimulates defense signaling via the activation of protein kinases Koji Yamada[1], Akira Mine[2] ([1]Grad. Sch. Tech. Ind. Sco. Sci., Tokushima Univ., [2]Grad. Sch. Agri., Kyoto Univ.)	2aI07 Development of technology for identification of proteins interacting with a target protein in plants using a proximity biotinylation enzyme, AirID Ryosuke Hori[1], Souta Shinohara[1], Akira Nozawa[1], Kohei Nishino[2], Hidetaka Kosako[2], Tatsuya Sawasaki[1] ([1]PROS, Ehime Univ., [2]Fujii Memorial Inst. Med. Sci.)				10:30
2aF08 A galactolipase, Galp3, is involved in low-temperature acclimation in *Synechococcus elongatus* PCC 7942 Nobuyuki Takatani[1], Makoto Uenosono[2], Kota Taniguchi[3], Yuya Senoo[4], Kazutaka Ikeda[4], Tatsuo Omata[1], Makiko Aichi[1] ([1]Col. of Biosci. and Biotech. Chubu Univ., [2]Grad. Sch. Bioagr. Sci., Nagoya Univ., [3]Grad. Sch. Biosci. and Biotech. Chubu Univ., [4]Kazusa DNA Res. Inst.)	2aG08 Quantitative analyses of pinnate venation in eudicot and monocot leaves Miho Kitazawa[1,2], Kazuya Horibe[3] ([1]CELAS, Osaka Univ., [2]Grad. Sch. Sci., Osaka Univ., [3]Grad. Sch. Eng. Sci., Osaka Univ.)	2aH08 High humidity-mediated abscisic acid inactivation in Arabidopsis restricts bacterial water acquisition Shigetaka Yasuda[1], Taishi Hirase[1], Haruka Ishizaki[1], Ryuji Suzuki[2], Akihisa Shinozawa[3,4], Shioriko Ueda[1], Izumi Yotsui[3], Masatsugu Toyota[2], Yusuke Saijo[1] ([1]Grad. Sch. Sci and Tech., NAIST, [2]Grad. Sch. Sci. Eng., Saitama Univ, [3]Dep. Biosci., Tokyo Univ. Agric., [4]NGRC, Tokyo Univ. Agric.)				10:45
2aF09 Role of Galp3 in *Synechococcus elongatus* PCC 7942 under low-temperature stress Kota Taniguchi[1], Nobuyuki Takatani[2], Makoto Uenosono[3], Kazutaka Ikeda[4], Yuya Senoo[4], Tatsuo Omata[2], Makiko Aichi[2] ([1]Grad. Biosci. Biotech., Chubu Univ., [2]Col. of Biosci. and Biotech., Chubu Univ., [3]Grad. Sch. Bioagr. Sci., Nagoya Univ., [4]Kazusa DNA Res. Inst.)	2aG09 Analytical consideration on the reason why the golden angle is derived from the inhibitory field model of phyllotaxis Takaaki Yonekura, Munetaka Sugiyama (Grad. Sch. Sci., Univ. Tokyo)	2aH09 Developmentally established SAR in Arabidopsis Kanoknipa Sukaoun[1], Tokuji Tsuchiya[2] ([1]Grad. Sch. ALS., Nihon Univ., [2]Coll. Biores. Sci., Nihon Univ.)					11:00

Ⓔ=Presentation in English

● Day 2, Thu., March 16, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D	Room E
	Photosynthesis	Biomembrane/Ion and solute transport	Organelles/Cytoskeleton	Specialized (secondary) metabolism	Reproduction
11:15	2aA10 Affinity purification of HA-tagged cpSRP involved in translocation of LHCP in *Chlamydomonas reinhardtii* Hiroshi Kuroda[1], Shin-ichiro Ozawa[2], Yuichiro Takahashi[1] ([1]RIIS, Okayama Univ., [2]IPSR, Okayama Univ.)		2aC10 Analyzing Induction Mechanisms And Localized Proteins of Lipid Droplets under Stress Conditions in Leaves Yuya Iwai[1], Emi Mishiro-Sato[2], Keiko Kano[2], Yuto Omata[3], Takashi L. Shimada[1,4,5] ([1]Fac. Hort., Chiba Univ., [2]ITBM, Nagoya Univ., [3]Tokyo Tech., [4]Grad. Sch. Hort., Chiba Univ., [5]Plant Mol. Sci. Cent., Chiba Univ.)		2aE10 ABA increases the interploidy hybridization success Hikaru Sato[1,3], Wenjia Xu[1,2], Heinrich Bente[1,4], Juan Santos-González[1], Claudia Köhler[1,4] ([1]SLU, Uppsala BioCenter, [2]INRA, AgroParisTech, [3]Tokyo Univ., Dept. Integrated Sciences, [4]MPI, Molecular Plant Physiology)
11:30	2aA11 Maintenance of the thylakoid membrane by FZL, a dynamin-like protein localized to the grana margin in *Arabidopsis thaliana* Yu Ogawa[1], Megumi Iwano[2], Akihiro Kawamoto[3], Genji Kurisu[3], Toshiharu Shikanai[4], Wataru Sakamoto[1] ([1]IPSR, Univ. Okayama, [2]Grad. Sch. Bio., Univ. Kyoto, [3]IPR, Univ. Osaka, [4]Grad. Sch. Sci., Univ. Kyoto)		2aC11 Functional Analyses of the RING Domain in the Ubiquitin E3 Ligase FLYING SAUCER2 Tadashi Kunieda[1,2], Chinatsu Matsuba[1], Mitsuki Jifuku[1], Emi Mishiro-Sato[3], George W. Haughn[4], Ikuko Hara-Nishimura[5], Taku Demura[1,2] ([1]Div. of Biol. Sci., NAIST, [2]CDG, NAIST, [3]ITbM, Nagoya Univ., [4]Dept. of Bot., UBC, [5]Fac. of Sci. and Eng., Konan Univ.)		2aE11 Developmental profiles of zygote-somatic protoplast fused cells in rice Erika Toda[1,2], Takumu Kamekawa[2], Tetsuya Higashiyama[1], Takashi Okamoto[2] ([1]Dept. Biol. Sci., Univ. Tokyo, [2]Dept. Biol. Sci., Tokyo Metropolitan Univ.)
11:45			2aC12 Preparation Of Plant Intact Nuclei That Can Be Used For Nuclear Transporter Assay Toshisuke Iwasaki, Ryoya Matsuzawa, Nobuyasu Enomoto, Kaho Maki, Miku Ota (Fac. Sci., Niigata Univ.)		2aE12 Ⓔ Autonomous development and regeneration of rice egg cells in a fertilization-independent manner Kasidit Rattanawong[1], Shizuka Koshimizu[2,3], Kaori Totsuka[1], Kentaro Yano[2], Takashi Okamoto[1] ([1]Tokyo Metropolitan University, [2]Meiji University, [3]National Institute of Genetics)

Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Environmental response B/ Environmental stresses	Development/Morphogenesis	Plant-organism interaction A	New technology				
2aF10 Impact of Reactive Oxygen Species and Iron on Chilling Stress in Cucumber Ko Takeuchi[1], Yufen Che[1], Takeshi Nakano[1], Kentaro Ifuku[2] ([1]Grad. Sch. Biostudies, Univ. Kyoto, [2]Grad. Sch. Agri., Univ. Kyoto)	2aG10 Multi-platform widely-targeted metabolomics identified candidate metabolites with a potential role in cell number and size coordination during leaf morphogenesis Hiromitsu Tabeta[1,2,3], Hiroyuki Koga[4], Muneo Sato[2], Shizuka Gunji[1], Hirokazu Tsukaya[4], Masami Yokota Hirai[2,5], Ali Ferjani[1] ([1]Tokyo Gakugei Univ., [2]RIKEN CSRS, [3]Grad. Sch. Art & Sci., Univ. of Tokyo, [4]Grad. Sch. Sci., Univ. of Tokyo, [5]Grad. Sch. Bioagric. Sci., Nagoya Univ.)	2aH10 E Proteomic screening and functional analysis of plant immune ROS sensors: NbGLR positively regulates plant immune responses Yuta Hino, Keita Okamoto, Taichi Inada, Miki Yoshioka, Tatsuhiko Kondo, Hitoshi Mori, Hirofumi Yoshioka (Grad. Sch. Bioagricultural Sci., Nagoya Univ.)		Symposium S06 A look at the world of environmental stress through the perspective of P700 oxidation (9:00–11:10)	The 19th Database Workshop (9:00–12:00)	Symposium S07 Japan-Singapore Binational Symposium: Plant Science & Precision Agriculture (9:00–11:50)	11:15
2aF11 Regulation of low temperature response by naphthoquinone derivatives in Arabidopsis Kohei Kitawaki, Ryota Mihara, Yasuko Ito-Inaba, Takehito Inaba (Fac. Agr., Univ. Miyazaki)	2aG11 Phenotypic analysis of an Arabidopsis mutant defective in jasmonate-induced trichome formation Miku Tashiro[1], Yuki Yoshida[2], Shinichiro Sawa[3] ([1]Dept. Sci., Kumamoto Univ., [2]FAST, Kumamoto Univ., [3]IRCAEB, Kumamoto Univ.)	2aH11 E Extracellular molecules produced by microbiota commensals interfering with the root growth and immunity in *Arabidopsis thaliana* Tomohisa Shimasaki[1,2], Ulla Neumann[1], Ryohei Thomas Nakano[1] ([1]MPIPZ, [2]RIKEN BRC)					11:30
2aF12 Comparisons of freezing tolerance through cold acclimation and de-acclimation processes between the altitudinal ecotypes of the evergreen herb, *Arabidopsis halleri* Genki Yumoto, Mie N. Honjo, Hiroshi Kudoh (Kyoto Univ., CER)	2aG12 An epigenetic regulator affects awn formation in barley Koki Nakamura[1], Yuichi Kikuchi[1], Mizuho Shiraga[2], Toshihisa Kotake[3], Shin Taketa[1,2], Yoko Ikeda[1,2] ([1]Grad. sch. Environmental and Life Sci., Okayama Univ., [2]IPSR, Okayama Univ., [3]Grad. Sch. Sci. and Eng., Saitama Univ.)	2aH12 E Activation mechanism of plant mixed lineage kinase domain-like (MLKL) proteins conferring TIR-NLR-mediated immunity Keiichi Hasegawa[1,2], Qiaochu Shen[1,2], Menghang Huang[3], Kay Hoffman[1], Yuhang Chen[4], Jijie Chai[1,2,3,5], Takaki Maekawa[1,5] ([1]University of Cologne, [2]Max planck institute for plant breeding research, [3]Tsinghua University, [4]State Key Laboratory of Molecular Developmental Biology, [5]The Cluster of Excellence on Plant Sciences (CEPLAS))					11:45

E=Presentation in English

● Day 3, Fri., March 17, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Primary metabolism	Organelles/Cytoskeleton	Environmental response A/ Physiological responses
09:00	3aA01 Photorespiration mutants (*gln2*/*glu1*) recruit RISE (H^+-independent) mechanism for the regulation of photosynthetic electron transport in Arabidopsis Shinya Wada[1], Takanori Maruta[2], Yuji Suzuki[3], Amane Makino[4], Chikahiro Miyake[1] ([1]Grad. Sch. Agri. Sci., Kobe-Univ., [2]Fac. Life Environ. Sci., Shimane Univ., [3]Fac. Agri. Iwate Univ., [4]Grad. Sci. Agri. Tohoku Univ.)	3aB01 Metabolome analysis revealed each *brittle culm* mutant-specific metabolism in rice Atsuko Miyagi[1,2], Kazuhisa Mori[2], Toshiki Ishikawa[2], Satoshi Ohkubo[3], Shunsuke Adachi[4], Taiichiro Ookawa[4], Masatoshi Yamaguchi[2], Toshihisa Kotake[2], Maki Kawai-Yamada[2] ([1]Fac. Agr., Yamagata Univ., [2]Grad. Sch. Sci. Eng., Saitama Univ., [3]Grad. Sch. Life Sci., Tohoku Univ., [4]Grad. Sch. Agr., Tokyo Univ. Agr. Tech.)	3aC01 Statistical analysis of organelle movement using state-space models Haruki Nishio[1,2], Satoyuki Hirano[3,4], Yutaka Kodama[3,4] ([1]DS center, Shiga Univ., [2]CER, Kyoto Univ., [3]Ctr. Biosci. Res. Educ., Utsunomiya Univ., [4]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ.)	3aD01 Genetic framework for growth angle control of lateral branches by *TILLER ANGLE CONTROL1* Nozomi Kawamoto, Takeshi Nishimura, Miyo, T. Morita (National Institute for Basic Biology)
09:15	3aA02 Analysis of the *x*- and *y*-type thioredoxin-deficient mutants in *Arabidopsis thaliana* Yuki Okegawa[1], Nozomi Sato[2], Ken Motohashi[2], Wataru Sakamoto[2] ([1]Inst. Plant Sci. Univ. Okayama, [2]Fac. Life. Sci., Univ. Kyoto Sangyo)	3aB02 Maintaining downstream glycolytic intermediates ensures rapid start of photosynthesis in cyanobacteria Kenya Tanaka[1,2,3], Mami Matsuda[3], Tomokazu Shirai[3,4], Akihiko Kondo[1,3,4], 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)	3aC02 Purification and structural analysis of TIC, the protein translocon at the inner envelope membrane of chloroplast Hayate Machino, Mika Hirose, Takayuki Kato, Masato Nakai (Institute for Protein Research, Grad. Sch. Sci., Univ. Osaka)	3aD02 Elucidation of BRX domain-dependent and -independent signaling in RLDs Takeshi Nishimura[1], Masahiko Furutani[2], Miyo, T. Morita[1] ([1]NIBB, [2]Kumamoto Univ.)
09:30	3aA03 Involvement of Chloroplast-localized Trx-like proteins in the Regulation of Non-Photochemical Quenching in *Arabidopsis thaliana* Yuka Fukushi[1,2], Yuichi Yokochi[1,2], Ken-ichi Wakabayashi[1,2], Keisuke Yoshida[1,2], Toru Hisabori[1,2] ([1]CLS, Tokyo Tech., [2]School of Life Science and Technology, Tokyo Tech.)	3aB03 Nitrate transport activity of HPP family proteins of cyanobacteria and Arabidopsis Shin-ichi Maeda, Tatsuo Omata (Grad. Sch. Bioagri., Univ. Nagoya)	3aC03 Possible involvement of a plant immune receptor in chloroplast stress signaling Kenji Nishimura (Sch. Biol. Env. Sci., Kwansei Gakuin Univ)	3aD03 Quantitative analysis of polar tip growth revealed phototropism of rhizoids in *Marchantia polymorpha* Hana Kojima, Kenji Hashimoto, Kazuyuki Kuchitsu (Appl. Biol. Sci., Tokyo Univ. of Science)
09:45	3aA04 Impact of Na^+/H^+ antiporters on thylakoid reactions in cyanobacteria Masaru Tsujii[1], Ayumu Kobayashi[1], Ayaka Kanou[1], Kouta Kera[1], Seiji Kojima[2], Riichi Oguchi[2], Kouki Hikosaka[2], Kintake Sonoike[3], Yasuhiro Ishimaru[1], Nobuyuki Uozumi[1] ([1]Grad. Sch. Eng., Univ. Tohoku, [2]Grad. Sch. Sci., Univ. Tohoku, [3]Fac. Edu., Univ. Waseda)	3aB04 The role of OsbZIP11 transcription factor in the regulatory network of nitrogen deficiency response Namie Ohtsuki[1], Yoshiaki Ueda[2], Yasuhito Sakuraba[1], Shuichi Yanagisawa[1] ([1]Grad. Sch. Agr. Sci. Univ. Tokyo, [2]JIRCAS)	3aC04 Elucidation for the chloroplast homeostasis mechanism via regulation of chlorophyll biosynthesis by a novel BR signaling factor BPG4 Ryo Tachibana[1], Susumu Abe[2], Momo Marugami[2], Ayumi Yamagami[1], Shohei Nosaki[3], Takuya Miyakawa[1], Takehito Inaba[4], Minami Matsui[5], Tetsuo Kushiro[2], Kentaro Ifuku[6], Tadao Asami[7], Takeshi Nakano[1] ([1]Grad. Sch. Biostudies., Kyoto Univ., [2]Dept. Agri., Meiji Univ., [3]Sch. Life and Environmental sci., Tsukuba Univ., [4]Dept. Agri. Univ., Miyazaki Univ., [5]RIKEN CSRS, [6]Grad. Sch. Agri., Kyoto Univ., [7]Grad. Sch. Agri. Life Sci., Univ. Tokyo)	3aD04 Regulation of rate and direction of polar tip growth of *Marchantia* rhizoids and cytosolic Ca^{2+} dynamics Kenji Hashimoto, Toru Ikeuchi, Mariko Higashijima, Naoaki Abe, Hana Kojima, Kazuyuki Kuchitsu (Dept. Appl. Biol. Sci., Tokyo Univ. of Science)
10:00	3aA05 Effects of far-red light on thylakoid functions: Biochemical analyses Ichiro Terashima, Masaru Kono (Sch. Sci., Univ. Tokyo)	3aB05 The role of OsHHO3 transcription repressor in nitrogen deficiency response of rice plants Kexin Liu[1], Yasuhito Sakuraba[1], Yoshiaki Ueda[2], Namie Ohtsuki[1], Mailun Yang[1], Shuichi Yanagisawa[1] ([1]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [2]JIRCAS)	3aC05 Construction of the genetic system for systematic accumulation the stringent response factor ppGpp to improve plant biomass productivity Mina Goto[1], Sousuke Imamura[2], Kazuhiro Takaya[2], Shinji Masuda[1] ([1]Grad. Life Sci. Tech., Tokyo Tech., [2]SE Labs, NTT)	3aD05 Fast electrical signals controlling the movement of the carnivorous plant *Drosera rotundifolia* Shoji Segami[1,2], Palfalvi Gergo[1], Kuniaki Tanase[1,3], Riku Matusda[1,3], Peng Chen[1,2], Hiraku Suda[4], Takushi Shimomura[5], Shoko Ohi[1], Masatsugu Toyota[4], Mitsuyasu Hasebe[1,2] ([1]NIBB, [2]SOKENDAI, [3]Grad. Sch. Sci., Nagoya Univ., [4]Grad. Sch. Sci. Eng., Saitama Univ., [5]NIPS)
10:15	3aA06 Mechanism of Acceleration of Photosynthesis by Far-red Light: Analyses using Thylakoids Masaru Kono, Ichiro Terashima (Biol. Sci., Grad. Sch. Sci., Univ. Tokyo)	3aB06 E The role of OsHHO3 transcription repressor in controlling phosphorus acquisition in rice Mailun Yang, Kexin Liu, Yasuhito Sakuraba, Shuichi Yanagisawa (Agro-Biotech. Res. Center, Grad. Sch. Agri. Life Sci., Univ. Tokyo)	3aC06 Activation of a plant organellar C-to-U RNA editing enzyme by complex formation Mizuki Takenaka[1], Sachiko Toma-Fukai[2], Frink Brody[1], Tenghua Wang[1], Sachi Takenaka[1], Toshiharu Shikanai[1], Toshiyuki Shimizu[3] ([1]Grad. Sch. Sci., Kyoto Univ., [2]Div. of Material Sci., NAIST, [3]Grad. Sch. Sci., Univ. Tokyo)	3aD06 E Effecter signaling in plant hypersensitive response; The single Molecule Signaling Analysis in potato-P. infesgtans Interaction Naotaka Furuichi (Plant Defence Molecular Institute)

Room E	Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Plant hormones/ Signaling molecules	Environmental response B/ Environmental stresses	Development/Morphogenesis	Plant-organism interaction B					
3aE01 Ⓔ An activity of phytoene desaturase negatively regulates auxin biosynthesis and signaling Kang Xu[1], Haoran Zeng[1], Emi Yumoto[2], Masashi Asahina[2,3], Ken-ichiro Hayashi[4], Hidehiro Fukaki[5], Hisashi Ito[6], Masaaki K. Watahiki[1,7] ([1]Grad. Sch. Life., Univ. Hokkaido, [2]Adv. Inst. Anal. Center., Univ. Teikyo, [3]Dept. Biosci., Univ. Teikyo, [4]Dept. Biosci., Univ. Okayama of Science, [5]Grad. Sch. Sci., Univ. Kobe, [6]Inst. Low Temp. Sci., Univ. Hokkaido, [7]Div. BioSci., Fac. Sci., Univ. Hokkaido)	3aF01 Analyses of stress granules and HSPs dynamics under high temperature conditions Yuzuki Nishi[1], Mei Ichikawa[1], Yukiko Yamamoto[1], Hiroko Iwanaga[1], Akie Miura[1], Takahito Takei[1,2], Yuichiro Watanabe[3], Takahiro Hamada[1] ([1]Fac. of Sci., Okayama Univ. of Sci., [2]Grad. Sch. Sci., Univ. Tokyo., [3]Grad. Sch. Arts and Sci., Univ. Tokyo.)	3aG01 Two-step regulation of lateral root spacing in *Arabidopsis thaliana* Shohei Oshiro[1], Tatsuaki Goh[1], Yohei Kondo[2], Takaaki Yonekura[3], Hidehiro Fukaki[4], Keiji Nakajima[1] ([1]Div. Biol. Sci., NAIST, [2]ExCELLS, [3]Dept. Biol., Grad. Sch. Sci., Univ. Tokyo, [4]Grad. Sch. Sci., Kobe Univ.)	3aH01 The function of OsSYMRK in AM symbiosis and its evolutional trajectory Kana Miyata, Moe Hosotani, Wendi Jiang, Ryo Takaoka, Kotaro Matsumoto, Hanae Kaku (Sch. Agri., Meiji Univ.)		Symposium S08 Plant biology in the era of single-cell omics (9:00–12:00)			09:00
3aE02 Indole-3 pyruvic acid regulates TAA1 activity and coordinates the two steps of auxin biosynthesis Akiko Sato[1], Kazuo Soeno[2], Rie Kikuchi[1], Megumi Narukawa-Nara[1], Chiaki Yamazaki[1], Yusuke Kakei[1], Ayako Nakamura[1], Yukihisa Shimada[1] ([1]KIBR, Yokohama City Univ., [2]WARC, NARO)	3aF02 Characterization of gene expression and cellular dynamics of conchocelis exposed to high temperature and low nutrient/osmotic pressure in a red macroalga *Neopyropia yezoensis* Asuka Saito[1], Mitsuaki Akutsu[2], Yuji Hiwatashi[1,2] ([1]School of Food Industrial Sciences, Miyagi University, [2]Grad. Sch. food, agric. envi sci, Univ. Miyagi)	3aG02 The Role of Auxin Biosynthesis in Nuclear Migration in Lateral Root Founder Cells Sanae Kaneta, Tatsuo Kakimoto (Grad. Sch. Sci., Osaka Univ.)	3aH02 Comparative transcriptome analysis of tomato roots forming different morphotypes of arbuscular mycorrhizae Hikaru Saito[1], Takaya Tominaga[2], Luxi Yao[3], Mayumi Egusa[3], Hironori Kaminaka[3] ([1]Dept. Agr. Sci., Grad. Sch. Sust. Sci., Tottori Univ., [2]United Grad. Sch. Agr., Tottori Univ., [3]Fac. Agr., Tottori Univ.)					09:15
3aE03 Unknown signaling molecules direct roots of parasitic plants toward host plants Marina Hayashi[1,2], Masakazu Nambo[2], Toshinori Kinoshita[1,2], Yuichiro Tsuchiya[2] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]ITbM, Nagoya Univ.)	3aF03 Physiological And Genetic Analyses Of *sensitive to long-term heat1* (*sloh1*) Mutant Of *Arabidopsis thaliana* Ryo Yamaguchi[1], Keisuke Tanaka[2], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Nodai Genome Cent., Tokyo Univ. of Agri.)	3aG03 Ⓔ Dimorphism of LR growth of *shy2/iaa3* and wt regulated by auxin Feiyang Lin[1], Hidehiro Fukaki[2], Masaaki K. Watahiki[1,3] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Grad. Sch. of Sci., Kobe Univ., [3]Fac. Sci, Hokkaido Univ.)	3aH03 Iridoid glucosides of lisianthus exhibit the lineage-specific hyphal branching activity in arbuscular mycorrhizal fungi Takaya Tominaga[1], Kotomi Ueno[2], Mayumi Egusa[2], Hikaru Saito[3], Hironori Kaminaka[2] ([1]United Grad. Sch. Agr., Tottori Univ., [2]Fac. Agr., Tottori Univ., [3]Dept. Agr. Sci., Grad. Sch. Sust. Sci., Tottori Univ.)					09:30
3aE04 Analysis of strigolactone signaling pathway evolution using Gymnosperm Kyoichi Kodama[1], Xiaonan Xie[2], Junko Kyozuka[1] ([1]Grad. Sch. Sci., Univ. Tohoku, [2]Sch. bio., Univ. Utsunomiya)	3aF04 Contribution of splicing-related factor to long-term heat response in *Arabidopsis thaliana* Naoya Endo, Ryo Tsukimoto, Kazuho Isono, Izumi Yotsui, Yoichi Sakata, Teruaki Taji (Dept. of Biosci., Tokyo Univ. of Agri.)	3aG04 Ⓔ Investigation of a gene network of lateral root formation Peiyuan Li[1], Masaaki K. Watahiki[1,2] ([1]Grad. Sch. life., Univ. HoKKaido, [2]Div. BioSci., Fac. Sci. Univ. HoKKaido)	3aH04 Ⓔ Root endophyte *Colletotrichum tofieldiae* promotes *Arabidopsis thaliana* growth under nitrogen limiting conditions Tan Anh Nhi Nguyen, Yuniar Devi Utami, Masami Nakamura, Kei Hiruma (Grad. Sch. Arts and Sci., Univ. Tokyo)					09:45
3aE05 Functional analysis of carlactonoic acid methyltransferases in rice Kiyoshi Mashiguchi[1,2], Yuki Sakurai[2], Naoki Kitaoka[2,3], Shinjiro Yamaguchi[1,2] ([1]ICR, Kyoto Univ., [2]Grad. Sch. Life Sci., Tohoku Univ., [3]Grad. Sch. Agri., Hokkaido Univ.)	3aF05 The role of mitochondrial RNA editing in long-term heat stress tolerance of Arabidopsis Riho Sawai, Koki Misawa, Fumiaki Asahi, Izumi Yotsui, Teruaki Taji, Yoichi Sakata (Dept. of Biosci., Tokyo Univ. of Agri.)	3aG05 Heme signaling in aboveground tissues regulates lateral root morphology via pre-mRNA splicing regulation Natsu Takayanagi[1], Toshihiro Arae[1], Hirokazu Takahashi[2], Takayuki Shimizu[3], Gorou Horiguchi[4], Mitsuhiro Aida[5], Hidehiro Fukaki[6], Tatsuru Masuda[3], Misato Ohtani[1,2,7] ([1]Grad. Sch. Front. Sci., Univ. Tokyo, [2]Div. Biol. Sci., NAIST, [3]Grad. Sch. Art and Sci., Univ. Tokyo, [4]Dept. Life Sci., Rikkyo Univ., [5]FAST, Kumamoto Univ., [6]Grad. Sch. Sci., Kobe Univ., [7]CSRS, RIKEN)	3aH05 Isolation of Lateral Root-Inducing Diffusible Compounds Produced by the Endophytic Fungus *Serendipita indica* Hirotaka Matsuura, Takumi Ogawa, Atsushi Okazawa, Daisaku Ohta (Grad. Sch. Agric., Osaka Met. Univ.)					10:00
3aE06 Effect of Strigolactones Hydrolysis on *Striga* Germination Kakeru Shioya[1], Takashi Ooi[2], Yuichiro Tsuchiya[2] ([1]Grad. Sch. Sci., Univ. Nagoya, [2]Institute of Transformative Bio-Molecules, Univ. Nagoya)	3aF06 Ⓔ The *hst1* gene promotes the growth performance of rice (*Oryza sativa* L.) genotypes under high temperature and drought stress Ermelinda Maria Lopes Hornai[1,2], Murat Aycan[3], Toshiaki Mitsui[3] ([1]Department of Life and Food Sciences, Graduate School of Science and Technology, Niigata University, Niigata, Japan., [2]Division of Research and Statistics, Timor-Leste Ministry of Agriculture and Fisheries, Dili, Timor-Leste., [3]Laboratory of Biochemistry, Faculty of Agriculture, Niigata University, Niigata, Japan.)	3aG06 Functional Analysis of RLF, a Cytochrome b_5 Like Heme Binding Protein, in Plant Organ Development Kentaro Iwata[1], Chieko Goto[1], Hinatamaru Fukumura[1], Takayuki Shimizu[2], Kaisei Maruyama[3], Tomoyuki Furuya[1,4], Yuki Kondo[1], Hiroyuki Kasahara[3,5], Tatsuru Masuda[2], Kimitsune Ishizaki[1], Hidehiro Fukaki[1] ([1]Grad. Sch. of Sci., Kobe Univ., [2]Grad. Sch. of Arts and Sci., Univ. Tokyo, [3]Grad. Sch. of Agri., Tokyo Univ. of Agri. and Tech., [4]Col. Life Sci., Ritsumeikan Univ., [5]RIKEN, CSRS)	3aH06 Exploring the mechanism of stomatal manipulation by the symbiotic bacterium *Pseudomonas paralactis* Rikako Hirata[1], Momoko Takagi[2], Yuniar Devi Utami[3], Kei Hiruma[3], Yosuke Toda[2,4], Akira Mine[1] ([1]Grad. Sch. Agr., Kyoto Univ., [2]ITbM, Nagoya Univ., [3]Grad. Sch. Arts and Sci., Tokyo Univ., [4]phytometrics Co., Ltd.)					10:15

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● Day 3, Fri., March 17, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Primary metabolism	Organelles/Cytoskeleton	Environmental response A/ Physiological responses
10:30	3aA07 Cost-benefit analysis of mesophyll conductance: a key determinant of chloroplastic CO_2 concentration and CO_2 assimilation rate Yusuke Mizokami[1], Riichi Oguchi[2], Daisuke Sugiura[3], Wataru Yamori[4], Ko Noguchi[1], Ichiro Terashima[5] ([1]Life Sci. Pharm. Tokyo Univ., [2]Grad. Sch. Sci. Osaka Metropolitan Univ., [3]Grad. Sch. Bioagr. Sci. Nagoya Univ., [4]Grad. Sch. Agr. and Life Sci. Univ. Tokyo, [5]Grad. Sch. Sci. Univ. Tokyo)	3aB07 The C-Terminal Region of SLIM1 Transcription Factor Is Required for Sulfur Deficiency Response Justyna Piotrowska[2], Yuki Jodoi[1], Ha Trang Nguyen[1], Anna Wawrzynska[2], Hideki Takahashi[3], Agnieszka Sirko[2], Akiko Maruyama[1] ([1]Kyushu University, [2]Polish Academy of Sciences, [3]Michigan State University)	3aC07 Possible involvement of chloroplast-localized mechanosensitive channels in the stomatal movements in Arabidopsis thaliana Takashi Shiina, Chikako Tanaka, Kanako Yamasaki, Yoko Ishizaki (Fac. Agri., Setsunan Univ.)	3aD07 Proteomic time-course analysis of the filamentous anoxygenic phototrophic bacterium *Chloroflexus aurantiacus* during the transition from respiratory to phototrophic growth mode Shigeru Kawai, Shigeru Shimamura, Yasuhiro Shimane, Yusuke Tsukatani (JAMSTEC)
10:45	3aA08 Analysis of the functional aspartate pathway in flaveria in NADP-ME type C4 plants Seika Hirai, Tsuyoshi Furumoto (Plant. life sci., Univ. Ryukoku)	3aB08 Effects of $NADP^+$ dephosphorylation under dark condition on respiratory metabolism in *Arabidopsis thaliana* Shin-nosuke Hashida[1], Yusuke Fukuda[2], Maki Kawai-Yamada[3] ([1]Bio. Environ. Chem., CRIEPI, [2]CERES, Co., [3]Grad. Sch. Sci. Eng., Saitama Univ.)	3aC08 Development of fluorescence molecular probes for rapid live-cell imaging of starch in plants Shuhei Kusano, Sakuya Nakamura, Masanori Izumi, Shinya Hagihara (RIKEN CSRS)	3aD08 Exploring genetic factors involved in low CO_2 response in Arabidopsis Kosei Yoneda, Susumu Uehara, Yasuko Ito-Inaba, Takehito Inaba (Fac. Agr., Univ. Miyazaki)
11:00	3aA09 A pyrenoid-localized protein SAGA1 is necessary for Ca^{2+}-binding protein CAS-dependent expression of nuclear genes encoding inorganic carbon transporters in *Chlamydomonas reinhardtii* Daisuke Shimamura, Yuki Niikawa, Donghui Hu, Takashi Yamano, Hideya Fukuzawa (Grad. sch. Biostudies., Kyoto Univ.)	3aB09 The Chlamydomonas MYB1 Is Involved in Lipid Remodeling under Phosphorus Deficiency Kosei Fukuda, Koichi Hori, Yuta Ihara, Mie Shimojima, Hiroyuki Ohta (Sch. Life Sci. and Tech., Tokyo Tech)	3aC09 Galactolipids contribute to balancing two differential structures of etioplast membranes Sho Fujii[1,2], Kae Akita[3], Ayuka Oome[3], Mizue Kajikawa[2,3], Hajime Wada[2], Noriko Nagata[3], Koichi Kobayashi[4] ([1]Fac. Ag. Life Sci., Hirosaki Univ., [2]Grad. Sch. Arts Sci., Univ. Tokyo, [3]Fac. Sci., Japan Women's Univ., [4]Fac. Lib. Arts Sci. Glob. Edu., Osaka Met. Univ.)	3aD09 Analyses of mesophyll signal regulating stomatal closure at high [CO_2] Ryuu Morikawa, Eigo Ando, Ichirou Terashima (Dep. Biol. Sci., Fac. Sci., Univ. Tokyo)
11:15	3aA10 Environmental Responses Of PtBests And TpBests, Candidate Bicarbonate Transporters In The Diatom Thylakoid Membrane Minori Nigishi, Kansei Yamagishi, Ryosuke Amano, Shun Ito, Ginga Shimakawa, Yusuke Matsuda (Grad. Sch. Sci., Univ. Kwansei-Gakuin)	3aB10 Exploration of the subcellular sites for the phytosterol biosynthesis and storage Kazuki Isobe[1], Yuri Fuji[1], Takashi L. Shimada[2], Ikuko Hara-Nishimura[3], Daisaku Ohta[1] ([1]Grad. Sch. Agri., Osaka Met. Univ., [2]Grad. Sch. Hort., Chiba Univ., [3]Fac. Sci. Eng., Konan Univ.)	3aC10 Pexophagy suppresses ROS-induced damage in leaf cells under high intensity light Kazusato Oikawa[1], Shino Goto-Yamada[2], Yasuko Hayashi[3], Michitaro Shibata[4], Maki Kondo[1], Shoji Mano[1], Haruko Ueda[5], Ikuko Hara-Nishimura[5], Kenji Yamada[2], Mikio Nishimura[1,5] ([1]Laboratory of Organelle Regulation., National Institute for Basic Biology, [2]Malopolska Centre of Biotechnol., Jagiellonian Univ, [3]Department of Science, Faculty of Science, Niigata University, [4]RIKEN Center for Sustainable Resource Science, [5]Faculty of Science and Engineering, Konan University)	

Room E	Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Plant hormones/ Signaling molecules	Environmental response B/ Environmental stresses	Development/Morphogenesis	Plant-organism interaction B					
3aE07 E Functional analysis of parasitic plant *Striga hermonthica* germination inhibitor RTC2 Jia Xin Yap[1], Hanae Imaizumi[2], Daisuke Uraguchi[3], Rie Yamaguchi[2], Ayato Sato[2], Takashi Ooi[2,3], Toshinori Kinoshita[1,2], Yuichiro Tsuchiya[2] ([1]Grad. Sch. of Sci., Nagoya Univ., [2]ITbM, Nagoy Univ., [3]Grad. Sch. of Engr., Nagoya Univ.)	3aF07 Autophagy alleviates the formation of chalky appearance of grains caused by heat stress under the high temperature during rice seed maturation Shigeru Hanamata[1,2], Daisuke Machida[3], Hirome Tezuka[3], Masashi Saito[3], Akira Saito[3], Masashi Aso[3], Yuri Sera[1], Kentaro Kaneko[3], Marouane Baslam[2], Murat Aycan[2], Takamitsu Kurusu[4], Kazuyuki Kuchitsu[1], Toshiaki Mitsui[2,3] ([1]Department of Applied Biological Science, Tokyo University of Science, [2]Laboratory of Biochemistry, Faculty of Agriculture, Niigata University, [3]Department of Life and Food Sciences, Graduate School of Science and Technology, Niigata University, [4]Department of Mechanical and Electrical Engineering, Suwa University of Science)	3aG07 E An embryo-maternal dialogue regulates *Arabidopsis* embryonic root formation Yujuan Du[1], Abdelhafid Bendahmane[2], Akie Shimotohno[1] ([1]Nagoya University, ITbM, [2]Institute of Plant Sciences Paris-Saclay (IPS2), INRAE, University of Paris-Saclay)	3aH07 Analysis of the effect of *Sphingobium* enriched in the tomato rhizosphere by α-tomatine on tomato growth Kyoko Takamatsu[1], Masaru Nakayasu[1], Shinichi Yamazaki[2], Yuichi Aoki[2,3], Atsushi J. Nagano[4,5], Masaru Kobayashi[6], Kentaro Ifuku[6], Kazufumi Yazaki[1], Akifumi Sugiyama[1] ([1]RISH, Kyoto Univ., [2]ToMMo, Tohoku Univ., [3]GSIS, Tohoku Univ., [4]Agri., Ryukoku Univ., [5]IAB, Keio Univ., [6]Grad. Agri., Kyoto Univ.)		Symposium S08 Plant biology in the era of single-cell omics (9:00–12:00)			10:30
3aE08 Identification of downstream genes of KL signaling in *Marchantia polymorpha* Kazato Kumagai[1], Hidemasa Suzuki[1], Aino Komatsu[1], Kyoichi Kodama[1], Xiaonan Xie[2], Junko Kyozuka[1] ([1]Grad. Sch. Life., Univ. Tohoku, [2]Ctr. for Biosci. Res. & Educ., Utsunomiya Univ)	3aF08 Elucidation of the signaling mechanism that regulates heat stress responses in rice Mayuko Furuhashi[1], Daisuke Ogawa[2], Jyunichi Yonemaru[2], Fuminori Takahashi[1] ([1]TUS, Fac. Adv. Eng., [2]NARO)	3aG08 Dissecting the Expression Control and the Role of *ARF10* and *ARF16* in Arabidopsis Root Cap Differentiation Keita Tanaka[1], Asuka Furukawa[1], Seiya Iida[1], Hiroki Saito[1], Yoko Okushima[2], Hidehiro Fukaki[2], Tatsuaki Goh[1], Shunsuke Miyashima[1], Keiji Nakajima[1] ([1]Grad. Sch. Sci. Tech., NAIST, [2]Grad. Sch. Sci., Kobe Univ.)					10:45
3aE09 Exploration for a novel signaling factor of gibberellin in *Marchantia polymorpha* Eita Shimokawa[1], Shogo Kawamura[1], Rui Sun[1], Kaori Suzuki[1], Maiko Okabe[1], Yoshihiro Yoshitake[1], Yukiko Yasui[1], Ryuichi Nishihama[3], Shohei Yamaoka[1], Kiyoshi Mashiguchi[2], Shinjiro Yamaguchi[2], Takayuki Kohchi[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]Inst. Chem. Research, Kyoto Univ., [3]Dep. Applied Biological Science, Tokyo Univ. of Science)	3aF09 Analysis of heat stress response in wheat by FTIR chemometrics Yoshiki Takeda[1], Salma O. M. Osman[2,3], Shota Tadano[2], Yuto Yamasaki[4], Abu Sefyan I. Saad[3], Izzat S.A. Tahir[3,5], Hisashi Tsujimoto[5], Kinya Akashi[1,2,4,5] ([1]Grad. Sch. Sust. Sci., Tottori Univ., [2]United Grad. Sch. Agr., Tottori Univ, [3]Agr. Res. Coop., Sudan, [4]Facl. Agr., Tottori Univ, [5]Arid Land Res. Center, Tottori Univ)	3aG09 Analysis of cell division and elongation dynamics in the Arabidopsis root tip by motion-tracking microscopy and AI-assisted image quantification Tatsuaki Goh[1], Yu Song[2], Takaaki Yonekura[1,3], Noriyasu Obushi[4], Zeping Den[2], Katsutoshi Imizu[1], Yoko Tomizawa[5], Yohei Kondo[5], Shunsuke Miyashima[1], Yutaro Iwamoto[2,6], Masahiko Inami[7], Yen-Wei Chen[2], Keiji Nakajima[1] ([1]Div. Biol. Sci., NAIST, [2]CISE, Ritsumeikan Univ., [3]Grad. Sch. Sci., Univ. Tokyo, [4]Grad. Sch. Engineer., Univ. Tokyo, [5]ExCELLS, NINS, [6]Fac. Inform. Commun. Engineer., OECU, [7]RCAST, Univ. Tokyo)					11:00
3aE10 E Evolution of NPR proteins: salicylic acid receptors Hyung-Woo Jeon[1], Hidekazu Iwakawa[1], Satoshi Naramoto[2], Cornelia Herrfurth[3], Nora Gutsche[4], Titus Schlüter[1], Junko Kyozuka[2], Shingo Miyauchi[1], Ivo Feussner[3], Sabine Zachgo[4], Hirofumi Nakagami[1] ([1]Max Planck Institute for Plant Breeding Research, [2]Tohoku University, [3]University of Göttingen, [4]Osnabrück University)	3aF10 E Ethanol treatment induces heat tolerance in tomato plants Daisuke Todaka[1], Quynh Do[1,4], Maho Tanaka[1,2], Akihiro Ezoe[1], Satoshi Takahashi[1,2], Junko Ishida[1,2], Miyako Kusano[5,6,7], Makoto Kobayashi[5], Kazuki Saito[5], Atsushi J. Nagano[8,9], Motoaki Seki[1,2,3] ([1]Plant Genomic Network Research Team, CSRS, RIKEN, [2]Plant Epigenome Regulation Laboratory, CPR, RIKEN, [3]Kihara Institute for Biological Research, YCU, [4]Agricultural Genetics Institute, Pham Van Dong Road, Bac Tu Liem District, [5]Metabolomics Research Group, CSRS, RIKEN, [6]Graduate School of Life and Environmental Sciences, Univ. of Tsukuba, [7]Tsukuba Plant Innovation Research Center, Univ. of Tsukuba, [8]Faculty of Agriculture, Ryukoku Univ., [9]Institute for Advanced Biosciences, Keio Univ.)	3aG10 Role of PATROL1 in root, which involved in intracellular vesicle trafficking Michitaka Notaguchi[1,2], Manami Ichita[3], Takaya Kawasoe[4], Keina Monda[5], Ken-ichi Kurotani[2], Koh Iba[5], Mimi Hashimoto-Sugimoto[1] ([1]Nagoya Univ. Bioagr. sci., [2]Nagoya Univ. Biosci. Biotech. Center, [3]Kumamoto Univ. Sci., [4]Kumamoto Univ. Sci. Technol., [5]Kyushu Univ. Sci)					11:15

E=Presentation in English

● Day 3, Fri., March 17, AM (9:00–12:00)

Time	Room A	Room B	Room C	Room D
	Photosynthesis	Primary metabolism	Organelles/Cytoskeleton	Environmental response A/ Physiological responses
11:30	3aA11 Different responses of photosynthesis to nitrogen starvation between highly oil-accumulative diatoms, *Fistulifera solaris* and *Mayamaea* sp. JPCC CTDA0820 Momoka Amano[1], Mana Nakayasu[1], Ginga Shimakawa[1], Tsuyoshi Tanaka[2], Yusuke Matsuda[1] ([1]Sch. Sci. Tech., Kwansei-Gakuin Univ., [2]Sch. Tech., Tokyo Agric. Tech. Univ.)	3aB11 Seasonal changes in sugar alcohols contained in male strobili of sugi Tomohiro Igasaki[1], Koichi Kakegawa[2], Shojiro Hishiyama[2], Koh Hashida[2] ([1]Molec. Gen. Biotech., FFPRI, [2]Res. Chm., FFPRI)	3aC11 Chloroplast gene expression in response to light intensity up-shifts and its regulation by the two-component system in *Cyanidioschyzon merolae* Akira Yasuda[1], Sousuke Imamura[2], Kan Tanaka[2], Mitsumasa Hanaoka[1,3] ([1]Grad. Sch. Horticul., Chiba Univ., [2]Lab. Chem. Life Sci., Tokyo Inst. Tech., [3]Plant Mol. Sch. Cent., Chiba Univ.)	
11:45	3aA12 The role of Lhcx Isoforms in photoprotection mechanism in the diatom, *Thalassiosira pseudonana* Mana Nakayasu[1], Kohei Yoneda[2], Ginga Shimakawa[1], Yusuke Matsuda[1] ([1]Grad. Sch. Sci. Tech., Kwansei Gakuin Univ., [2]Fac. Life Environ. Sci., Univ. Tsukuba)		3aC12 Involvement of heme on light-dependent transcriptional regulation by retrograde signaling in *Cyanidioschyzon merolae* Haruka Saito[1], Hikaru Ohara[1], Yuki Kobayashi[2], Kan Tanaka[2], Masayuki Igarashi[3], Ryutaro Utsumi[4], Toshihide Okajima[4], Mitsumasa Hanaoka[1,5] ([1]Grad. Sch. Horticul., Chiba Univ., [2]Lab. Chem. Life Sci., Tokyo Inst. Tech., [3]Inst. Microb. Chem., [4]SANKEN, Osaka Univ., [5]Plant Mol. Sch. Cent., Chiba Univ.)	

Room E	Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Plant hormones/ Signaling molecules	Environmental response B/ Environmental stresses	Development/Morphogenesis	Plant-organism interaction B					
3aE11 Screening and Analysis of molecular mechanism of novel plant growth promotor PPG Kazuma Ohata[1], Shun Takeno[2,3], Shota Tanaka[2,3], Keiya Kaga[1,7], Ayumi Yamagami[1], Setsuko Shimada[2], Minami Matsui[2], Yusuke Kakei[4], Yukihisa Shimada[4], Shoji Segami[5], Ryosuke Sasaki[2], Masami Yokota Hirai[2], Yasumitsu Kondo[2], Naoshi Dohmae[2], Tetsuo Kushiro[3], Masayoshi Maeshima[5], Tadao Asami[6], Hiroyuki Osada[2], Kazuo Shinozaki[2], Masaru Ohme-Takagi[7], Takeshi Nakano[1] ([1]Grad. Sch. Biostudies, Kyoto Univ., [2]RIKEN CSRS, [3]Grad. Agri. Chem., Meiji Univ., [4]Yokohama City Univ., [5]Grad Sch. Biol. Agri., Nagoya Univ., [6]Grad. Sch. Appl. Biol. Chem., Univ. of Tokyo, [7]Grad. Sch. Sci. Eng., Saitama Univ.)	3aF11 E Ethanol-mediated survival strategy against drought stress in plants Khurram Bashir[1,2], Daisuke Todaka[2], Sultana Rasheed[2], Akihiro Matsui[2,3], Zarnab Ahmad[1], Kaori Sako[4], Yoshinori Utsumi[2], Anh Thu Vu[2], Muneeba Siddique[1], Mehrooz Adana Qureshi[1], Maho Tanaka[2,3], Satoshi Takahashi[2,3], Junko Ishida[2,3], Yuuri Tsuboi[5], Shunsuke Watanabe[6,7], Yuri Kanno[6], Eigo Ando[8,9], Makoto Seito[10], Hinata Motegi[2,10], Muneo Sato[11], Rui Li[11], Saya Kikuchi[12], Miki Fujita[12], Miyako Kusano[13,14], Makoto Kobayashi[13], Yoshiki Habu[14,15], Atsushi J. Nagano[16,17], Kanako Kawaura[10], Jun Kikuchi[5,18,19], Kazuki Saito[13], Masami Yokota Hirai[11], Mitsunori Seo[6], Kazuo Shinozaki[12], Toshinori Kinoshita[8,20], Motoaki Seki[2,4,10] ([1]Department of Life Sciences, SBA School of Science and Engineering, Lahore University of Management Sciences, [2]Plant Genomic Network Research Team, Center for Sustainable Resource Science, RIKEN, [3]Plant Epigenome Regulation Laboratory, Cluster for Pioneering Research, RIKEN, [4]Department of Advanced Bioscience, Faculty of Agriculture, Kindai University, [5]Environmental Metabolic Analysis Research Team, Center for Sustainable Resource Science, RIKEN, [6]Dormancy and Adaptation Research Unit, Center for Sustainable Resource Science, RIKEN, [7]IPSiM, University of Montpellier, CNRS, INRAE, Institut Agro, [8]Division of Biological Sciences, Graduate School of Science, Nagoya University, [9]Department of Biological Sciences, School of Science, The University of Tokyo, [10]Kihara Institute for Biological Research, Yokohama City University, [11]Mass Spectrometry and Microscopy Unit, Center for Sustainable Resource Science, RIKEN, [12]Gene Discovery Research Group, Center for Sustainable Resource Science, RIKEN, [13]Metabolomics Research Group, Center for Sustainable Resource Science, RIKEN, [14]Graduate School of Life and Environmental Sciences, University of Tsukuba, [15]Institute of Agrobiological Sciences, National Agriculture and Food Research Organization, [16]Faculty of Agriculture, Ryukoku University, [17]Institute for Advanced Biosciences, Keio University, [18]Graduate School of Medical Life Science, Yokohama City University, [19]Graduate School of Bioagricultural Sciences, Nagoya University, [20]Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University)	3aG11 E *Arabidopsis thaliana RPL13aC* regulates root system architecture through shoot potassium accumulation Dichao Ma, Hirofumi Fukuda, Naoyuki Sotta, Toru Fujiwara (Grad. Sch. Agri., Univ. Tokyo)					11:30
3aE12 Analysis of a novel small compound promoting hypocotyl growth of *Arabidopsis thaliana* Mizuki Murao[1], Rika Kato[1], Rina Hisamatsu[2], Ayato Sato[2], Shinya Hagihara[3], Kenichiro Itami[2], Keiko Torii[2,4], Naoyuki Uchida[5] ([1]Nagoya Univ · Grad. Sci., [2]Nagoya Univ · ITbM, [3]Riken · CSRS, [4]UT Austin, HHMI, [5]Nagoya Univ · Ctr. Gene Res.)	3aF12 Gene expression analysis using RNA-Seq in potato (Solanum Tuberosum L.) during drought stress Kenta Kawamoto, Hirofumi Masutomi, Katsuyuki Ishihara (Calbee, Inc.)	3aG12 Periodic expression patterns of nodule symbiosis-related genes in *Lotus japonicus* Takashi Soyano, Masayoshi Kawaguchi (NIBB)						11:45

Symposium S08 Plant biology in the era of single-cell omics (9:00–12:00)

E=Presentation in English

● Day 3, Fri., March 17, PM (13:30–16:30)

Time	Room A	Room B	Room C	Room D
	Cell cycle/Cell division	Primary metabolism	Cell wall	Photoreceptors/Photoresponses
13:30	3pA01 E Control of DNA replication by histone methyltransferases ATXR5 and ATXR6 in *Arabidopsis thaliana* Kar Yee Moo[1], Akiko Masada[1], Haruka Manabe[1], Hirotomo Takatsuka[2], Shiori S Aki[1], Masaaki Umeda[1] ([1]Graduate School of Science and Technology, Nara Institute of Science and Technology, [2]School of Biological Science and Technology, College of Science and Engineering, Kanazawa University)	3pB01 E Phosphatidylcholine biosynthesis pathways in Arabidopsis - a role of distinct methyltransferases Yuki Nakamura[1,2,3], Yu-Chi Liu[3], Anh H. Ngo[1,3], Yue-Rong Tan[3], Ying-Chen Lin[3], Artik Elisa Angkawijaya[1,3], Van Cam Nguyen[1,3], Kazue Kanehara[3] ([1]RIKEN CSRS, [2]Grad. Sch. Sci., Univ. Tokyo, [3]IPMB, Academia Sinica)	3pC01 Analysis of Regulatory Mechanisms of Cell Wall Construction in Tomato Fruit Morphological Changes under Calcium Deficiency Conditions Kiei Soyama[1], Akari Miyakoshi[2], Momoko Miyachi[2], Haruka Sugiyama[2], Manatsu Itano[2], Takumi Higaki[3], Shinobu Satoh[2], Jun Furukawa[2], Hiroaki Iwai[2] ([1]Grad. Sch. Sci. and Tech., Univ. Tsukuba, [2]Institute of Life and Environ. Sci., Univ. Tsukuba, [3]Grad. Sch. Sci. and Tech., Univ. Kumamoto)	3pD01 Functional Role Of The Kinesin-like Protein MpKAC In Light-dependent Nuclear Positioning In *Marchantia* Kosei Iwabuchi[1], Hiroki Yagi[2], Nanaka Oki[2], Reina Yokohata[2], Asami Nakata[2], Saya Hiromoto[2], Aino Komatsu[3], Yuuki Sakai[4], Shingo Takagi[5], Ryuichi Nishihama[6], Takayuki Kohchi[7], 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]Grad. Sch. Life Sci., Tohoku Univ., [4]Grad. Sch. Sci., Kobe Univ., [5]Grad. Sch. Sci., Osaka Univ., [6]Fac. Sci. Technol., Tokyo Univ. Sci., [7]Grad. Sch. Biostudies, Kyoto Univ.)
13:45	3pA02 Functional analysis of the cell cycle regulators WEE1 and CDC25 in *Marchantia polymorpha* Ayumi Oda[1], Shiori S Aki[1], Ryuichi Nishihama[2], Masaaki Umeda[1] ([1]Graduate School of Science and Technology, Nara Institute of Science and Technology, [2]Faculty of Science and Technology, Department of Applied Biological Science, Tokyo University of Science)	3pB02 E Detecting the Interplay Between DNA Methylation and Lipid Production in Plants Jo-Wei Allison Hsieh[1,2], Yu-Chi Liu[1], Lin-Tzu Huang[1], Yuki Nakamura[3,4], Pao-Yang Chen[1,2] ([1]Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, [2]Genome and Systems Biology Degree Program, Academia Sinica and National Taiwan University, Taipei, Taiwan, [3]RIKEN Center for Sustainable Resource Science, Yokohama, Japan, [4]Graduate School of Science, The University of Tokyo, Japan)	3pC02 Search for the target molecules of Rboh-derived ROS in *Marchantia polymorpha*: Are the cross-linking of cell wall structure glycoproteins, classical extensins, involved? Kayo Kamiya, Mariko Higashijima, Yuto Yamashita, Naoaki Abe, Sachi Shirato, Kenji Hashimoto, Kazuyuki Kuchitsu (Appl. Biol. Sci., Tokyo Univ. of Science)	3pD02 Speed of signal transmission in chloroplast accumulation response depends on phototropin expression levels Satoyuki Hirano[1,2], Haruki Nishio[3,4], Yutaka Kodama[1,2] ([1]Ctr. Biosci. Res. Educ., Utsunomiya Univ, [2]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ, [3]DS center, Shiga Univ, [4]CER, Kyoto Univ)
14:00	3pA03 DNA Damage Response in *M. polymorpha*, a basal lineage of land plants Kaoru Yoshiyama[1], Tomoaki Sakamoto[2], Seisuke Kimura[2], Atsushi Higashitani[1], Jun Hidema[1] ([1]Tohoku Univ. Life Sciences, [2]Kyoto Sangyo Univ. Life Sciences)	3pB03 E Role of LYSOPHOSPHATIDIC ACID ACYLTRANSFERASE 2 (LPAT2) in *de novo* glycerolipid metabolism and developmental control: Two sides of the same coin? Nina Alyssa Barroga[1,2,3], Yuki Nakamura[1] ([1]Center for Sustainable Resource Science, RIKEN, Yokohama 230-0045, [2]Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan, [3]Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, Academia Sinica and National Chung Hsing University, Taipei 11529, Taiwan)	3pC03 Multi-directional planar expansion of pavement cells facilitates round, fan-like cotyledon morphogenesis in *Arabidopsis thaliana* Kotomi Kikukawa[1], Hisako Takigawa-Imamura[2], Kouichi Soga[3], Toshihisa Kotake[4], Takumi Higaki[1] ([1]Grad. Sch. Sci. Tech., Univ. Kumamoto, [2]Grad. Sch. Med. Sci., Univ. Kyushu, [3]Grad. Sch. Sci., Univ. Osaka Metropolitan, [4]Grad. Sch. Sci. Eng., Univ. Saitama)	3pD03 Identification of phosphorylation sites of a blue-light receptor phototropin to induce chloroplast cold-avoidance response Minoru Noguchi[1,2], Yutaka Kodama[1,2] ([1]Ctr. Biosci. Res. Educ., Utsunomiya Univ., [2]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ.)
14:15	3pA04 Functional analyses of HPY2/NSE2 and SMC5/6 complex in the regulation of plant cell cycle Takashi Ishida, Mika Yoshimura (Kumamoto Univ., FAST)	3pB04 E A Pair of Arabidopsis Diacylglycerol Kinases Involved In Phosphatidylglycerol Biosynthesis in the Endoplasmic Reticulum Van Nguyen (RIKEN Center for Sustainable Resource Science (CSRS), RIKEN Yokohama)	3pC04 Aliphatic omega-hydroxylases function is essential for apoplastic barrier formation in *physcomitrium patens* Kanade Tatsumi, Hugues Renault (CNRS, IBMP, Strasbourg Univ.)	3pD04 Phosphorylation of two residues in plasma membrane H^+-ATPase is essential for blue light-dependent stomatal opening Saashia Fuji[1], Shota Yamauchi[1], Naoyuki Sugiyama[2], Ryuichi Nishihama[3], Ken-ichiro Shimazaki[4], Atsushi Takemiya[1] ([1]Grad. Sch. Sci. Tech. Innov., Yamaguchi Univ., [2]Grad. Sch. Pharm. Sci., Kyoto Univ., [3]Fac. Sci. Tech., Tokyo Univ. Sci., [4]Grad. Sch. Sci., Kyushu Univ.)
14:30	3pA05 E KNO1-mediated autophagic degradation of the Bloom component RMI1 promotes homologous recombination Poyu Chen[1], Masaki Ito[1], Arp Schnittger[2] ([1]School of Biological Science and Technology, College of Science and Engineering, Kanazawa University, [2]Department of Developmental Biology, University of Hamburg)	3pB05 E The involvement of GLYCEROPHOSPHODIESTER PHOSPHODIESTERASE6 in root growth of Arabidopsis in P starvation Hai Anh Ngo[1,3], Yuki Nakamura[1,2,3] ([1]RIKEN Center for Sustainable Resource Science (CSRS), Yokohama 230-0045, Japan, [2]Graduate School of Science, The University of Tokyo, Tokyo 113-8654, Japan, [3]Institute of Plant and Microbial Biology, Academia Sinica, Taipei 11529, Taiwan)	3pC05 ROS produced very early stages of tissue reunion process of *Arabidopsis* incised stem contributes to cambium formation by control of ANAC096 Yusuke Ohba[1], Jiuyi Li[1], Tatsuya Yamazaki[1], Keita Matsuoka[2], Masashi Asahina[2,3], Kazuyuki Kuchitsu[4], Shinobu Satoh[5], Hiroaki Iwai[5] ([1]Gard. Sch. Sci. and Tech., Univ. Tsukuba, [2]Dept. Biosci., Teikyo Univ., [3]Adv. Inst. anal. Ctr., Teikyo Univ., [4]Dept. appl. Bio. Sci., Tokyo Univ. Sci., [5]Fac. Life and Env. Sci., Univ. Tsukuba)	3pD05 WDR promotes blue light-dependent stomatal opening via starch degradation in guard cells Shota Yamauchi[1], Naoyuki Sugiyama[2], Yutaka Kodama[3], Luca Distefano[4], Mika Nomoto[5], Yasuomi Tada[5], Diana Santelia[4], Ken-ichiro Shimazaki[6], Atsushi Takemiya[1] ([1]Grad. Sch. Sci. Tech. Innov., Yamaguchi Univ., [2]Grad. Sch. Pharm. Sci., Kyoto Univ., [3]Center for Bioscience Research and Education, Utsunomiya Univ., [4]Institute of Integrative Biology, ETH Zürich, [5]Center for Gene Research, Nagoya Univ., [6]Faculty of Science, Kyushu Univ.)

Room E	Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Plant hormones/ Signaling molecules	Environmental response B/ Environmental stresses	Flowering/Clock	Plant-organism interaction B					
3pE01 Isolation and characterization of a novel ABC-type transporter gene possibly involved in cytokinin export Takuya Uragami, Takatoshi Kiba, Hitoshi Sakakibara (Grad. Sch. Bio. Sci., Nagoya Univ)	3pF01 Functional analysis of novel membrane proteins mediating dehydration stress response Haruka Otani[1], Wakana Inoue[1], Takehiro Suzuki[2], Naoshi Dohmae[2], Fuminori Takahashi[1] ([1]TUS, Fac. Adv. Eng., [2]RIKEN, CSRS)	3pG01 Identification of DVRs: small compounds inducing the devernalization under light condition in *Arabidopsis thaliana* Nana Otsuka[1], Masaya Fukuchi[1], Hikaru Sawa[1], Ayato Sato[2], Makoto Shirakawa[1], Toshiro Ito[1] ([1]Grad. Sch. Sci and Tech., NAIST, [2]WPI-ITbM, Nagoya Univ.)	3pH01 Physiological Role of Secreted Peroxidases and Apoplastic Naphthoquinones in *Lithospermum erythrorhizon* Takuji Ichino[1], Ken Yokawa[2], Kanade Tatsumi[1], Kei Hiruma[3,4], Masaru Nakayasu[1], Kyoko Takamatsu[1], Eiko Moriyoshi[1], Yuka Munakata[1], Akifumi Sugiyama[1], Takahito Watanabe[1], Koichiro Shimomura[5], Takashi Watanabe[1], Kazufumi Yazaki[1] ([1]RISH, Kyoto Univ., [2]Fac. Eng., Kitami Inst. Tech., [3]Grad. Sch. Arts and Sci., Univ. Tokyo, [4]Grad. Sch. Sci. and Tech., NAIST, [5]Grad. Sch. Life Sci., Toyo Univ.)		Symposium S09 A frontier in plant sensing and receptor research (13:30–16:30)			13:30
3pE02 A cell wall-localized cytokinin/purine riboside nucleosidase is involved in apoplastic cytokinin metabolism in *Oryza sativa* Mikiko Kojima[1,2], Nobue Makita[1], Miwa Ohashi[2], Alicia Surjana[2], Toru Kudo[1], Noriko Takeda-Kamiya[1], Kiminori Toyooka[1], Akio Miyao[3,5], Hirohiko Hirochika[3], Tsuyu Ando[4,5], Ayahiko Shomura[4,5], Masahiro Yano[3,5], Toshio Yamamoto[3,5,6], Tokunori Hobo[7], Hitoshi Sakakibara[1,2] ([1]CSRS., RIKEN, [2]Grad. Sch. Bioagri. Sci., Nagoya Univ, [3]NIAS, [4]STAFF Inst., [5]NARO, [6]IPSR., Okayama Univ, [7]NUBBC)	3pF02 Functional analysis of the interacting proteins of transcription factor mediating drought stress responses Junki Maeya, Takeru Nakayama, Fuminori Takahashi (TUS, Fac. Adv. Eng.)	3pG02 Role of plasmodesmata in the symplastic FT transport Yusuke Murata, Mitsutomo Abe (Grad. Sch. Arts and Sci., Univ. Tokyo)	3pH02 Identification And Functional Analysis Of Isoflavone Metabolic Genes In Soybean Rhizosphere Noritaka Aoki[1], Tomohisa Shimasaki[1,2], Wataru Yazaki[1], Masaru Nakayasu[1], Akinori Ando[3], Shigenobu Kishino[3], Jun Ogawa[3], Sachiko Masuda[4], Arisa Shibata[4], Wataru Suda[5], Ken Shirasu[4], Kazufumi Yazaki[1], Akifumi Sugiyama[1] ([1]RISH, Kyoto Univ., [2]RIKEN BRC, [3]Grad. Sch. of Agri. Kyoto Univ., [4]RIKEN CSRS, [5]RIKEN IMS)					13:45
3pE03 Elucidation of the physiological roles of the shoot-derived isopentenyl adenine-type cytokinin Kota Monden[1], Mikiko Kojima[2], Yumiko Takebayashi[2], Takamasa Suzuki[3], Daisuke Sugiura[4], Tsuyoshi Nakagawa[5], Hitoshi Sakakibara[2,4], Takushi Hachiya[5] ([1]Gra. Sch. Nat. Sci., Shimane Univ., [2]CSRS, Riken, [3]Gra. Sch. Biosci. Biotech., Chubu Univ., [4]Gra. Sch. Bioagr. Sci., Nagoya Univ., [5]Dept. Mol. Genet., Int. Cent. Sci. Res., Shimane Univ.)	3pF03 Ⓔ Stress-Induced Dynamic Changes In The Subcellular Localization Of β-Glucosidase Involved In ABA Production Yutong Song, Tayebeh Abedi, Hiroshi Shimada, Atsushi Sakamoto (Grad. Sch. Integr. Sci. Life, Hiroshima Univ.)	3pG03 Regulatory mechanism of the condensate formation induced by liquid-liquid phase separation of florigen activation complex Mayu Enomoto[1], Suai Anzawa[1], Yuka Koizumi[1], Kyoko Furuita[2], Ken-ichiro Taoka[3,4], Keiji Nishida[4], Akihiko Kondo[4], Takashi Kodama[2], Toshimichi Fujiwara[2], Hiroyuki Tsuji[3,5], Chojiro Kojima[1,2] ([1]Grad. Sch. of Engr Sci., YNU, [2]IPR, Univ. Osaka, [3]KIBR, YCU, [4]Engineering Biology Research Center., Univ. Kobe, [5]BBC, Univ. Nagoya)	3pH03 Effect of plant-soil feedbacks under drought on drought tolerance of succeeding soybean plants Yushiro Fuji[1], Megumi Narukawa[2], Mai Tsuda[3], Yasunori Ichihashi[2], Ryosuke Sasaki[1], Kengo Sakurai[4], Hirokazu Takahashi[5], Hideki Takanashi[4], Akito Kaga[6], Hisashi Tsujimoto[7], Mikio Nakazono[5], Toru Fujiwara[4], Hiroyoshi Iwata[4], Masami Yokota Hirai[1,5] ([1]RIKEN · CSRS, [2]RIKEN BRC, [3]T-PIRC, Univ. Tsukuba, [4]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [5]Grad. Sch. Bioagric. Sci., Nagoya Univ., [6]Inst. Crop Sci., NARO, [7]Arid Land Res. Ctr., Tottori Univ.)					14:00
3pE04 [Cancelled]	3pF04 Phosphoproteomic Analysis of SnRK2 Substrates in Arabidopsis Guard Cells Kota Yamashita[1], Mizuki Saigusa[1], Shota Yamauchi[2], Atsushi Takemiya[2], Taishi Umezawa[1] ([1]BASE, Tokyo Univ. Agric. Tech., [2]Yamaguchi Univ.)	3pG04 Photoperiod-Dependent Chromatin Dynamics in the Locus of Mp*BONOBO*, a Regulator Gene for Germ Cell Differentiation in the Bryophyte *Marchantia polymorpha* Kenta Tanaka, Yoshihiro Yoshitake, Tomoaki Kajiwara, Haonan Bao, Yukiko Yasui, Shohei Yamaoka, Takayuki Kohchi (Grad. Sch. Biostudies, Kyoto Univ.)	3pH04 Ⓔ Evolutionary insights into the interaction between tobacco roots and *Arthrobacter* mediated by nicotine-degradation gene cluster Tomohisa Shimasaki[1], Sachiko Masuda[2], Arisa Shibata[2], Wataru Suda[3], Ken Shirasu[2], Yasunori Ichihashi[1], Kazufumi Yazaki[4], Akifumi Sugiyama[4], Ryohei Thomas Nakano[5] ([1]RIKEN · BRC, [2]RIKEN · CSRS, [3]RIKEN · IMS, [4]RISH, Kyoto Univ., [5]MPIPZ)					14:15
3pE05 Cytokinins contribute prehaustorium induction in the parasitic plant *Striga hermonthica* Natsumi Aoki[1], Songkui Cui[1,2], Satoko Yoshida[1] ([1]NAIST, [2]Kunming Institute of Botany)	3pF05 Strategies for resistance to long-term drought stress conditions mediated by SNS1 Sotaro Katagiri[1], Yoshiaki Kamiyama[1], Toshinori Kinoshita[2], Taishi Umezawa[1] ([1]Tokyo Univ. of Agric. and Thec., [2]Nagoya Univ.)	3pG05 Analysis of genes involving photoperiod-dependent dormancy induction and turion development in *Lemna turionifera* Shogo Ito, Tokitaka Oyama (Department of Botany, Division of Biological Sciences, Graduate School of Science, Kyoto University)	3pH05 Plant growth alteration by bacterial volatile organic compounds Jun Murata, Takehiro Watanabe, Hajime Komura (Suntory Foundation for Life Sciences)					14:30

Ⓔ=Presentation in English

● Day 3, Fri., March 17, PM (13:30–16:30)

Time	Room A	Room B	Room C	Room D
	Cell cycle/Cell division	Primary metabolism	Cell wall	Photoreceptors/Photoresponses
14:45	3pA06 The localization of chromosomal passenger complex is defined by molecular convergence Shinichiro Komaki[1], Eelco C Tromer[2], Geert De Jaeger[3], Nancy De Winne[3], Maren Heese[4], Arp Schnittger[4] ([1]Grad. Sch. Biol. Sci., NAIST, [2]Univ. Groningen, [3]Univ. Ghent, [4]Univ. Hamburg)	3pB06 E A pair of phosphoinositide-binding proteins modulates plant growth and trichome development through the transcriptional regulation of *GLABRA1* in *Arabidopsis thaliana* Chao-Yuan Yu[1,2], Oshin Sharma[2,3,4], Yuki Nakamura[1], Kazue Kanehara[2,5] ([1]Center for Sustainable Resource Science, RIKEN, Yokohama, Japan, [2]Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, [3]Molecular and Biological Agricultural Sciences Program, Taiwan International Graduate Program, National Chung-Hsing University and Academia Sinica, Taipei, Taiwan, [4]Graduate Institute of Biotechnology, National Chung-Hsing University, Taichung, Taiwan, [5]Biotechnology Center, National Chung-Hsing University, Taichung, Taiwan)	3pC06 E Understanding the role of *de novo* tracheary elements in *Nicotiana* interfamily grafting Chaokun Huang[1], Ken-ichi Kurotani[2], Ryo Tabata[1], Nobutaka Mitsuda[3], Ryohei Sugita[4,5], Keitaro Tanoi[4], Michitaka Notaguchi[1,2,6] ([1]Grad. Sch. Bioagri., Univ. Nagoya, [2]Bioscience and Biotechnology Center, Univ. Nagoya, [3]Bioproduction Research Institute, AIST, [4]Grad. Sch. Agricultural and Life Sciences., Univ. Tokyo, [5]Radioisotope Research Center, Univ. Nagoya, [6]ITBM., Univ. Nagoya)	3pD06 Analyses of plasma membrane H$^+$-ATPase regulation in stomatal guard cells Yuki Hayashi[1], Kohei Fukatsu[1], Koji Takahashi[1], Satoru N. Kinoshita[1], Kyohei Kato[1], Keiko Kuwata[2], Takamasa Suzuki[3], Toshinori Kinoshita[1,2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]WPI-ITbM, Nagoya Univ., [3]Dept. Bio. Chem., Chubu Univ.)
15:00	3pA07 The function of Kinesin-14 family proteins of *Arabidopsis thaliana* is regulated by phosphorylation Michiko Sasabe[1], Yudai Mikami[1], Masanobu Tomita[1], Yoshiki Yamaji[1], Takahiro Hamada[2], Hirofumi Nakagami[3], Takashi Hashimoto[4], Yasunori Machida[5] ([1]Facul. of Agri. & Life Sci., Hirosaki Univ., [2]Facul. of Sci., Okayama Univ. of Sci., [3]Max Planck Institute for Plant Breeding Research, [4]Grad. Sch. Biol. Sci., NAIST, [5]Grad. Sch. of Sci., Nagoya Univ.)	3pB07 E A lipidomic landscape of circadian rhythm in *Arabidopsis thaliana* Artik Elisa Angkawijaya[1,2], Van Cam Nguyen[1,2], Katharina Gutbrod[3], Helga Peisker[3], Peter Dörmann[3], Yuki Nakamura[1,2] ([1]Center for Sustainable Resource Science, RIKEN, Yokohama, 230-0045 Japan, [2]Institute of Plant and Microbial Biology, Academia Sinica, 128 sec.2 Academia Rd., Nankang, Taipei 11529, Taiwan, [3]Institute of Molecular Physiology and Biotechnology of Plants, University of Bonn, D-53115 Bonn, Germany)	3pC07 E Chemical screening to identify graft promoting molecules in Fabaceae Qianqian Luo[1], Xueyao Shu[1], Ayato Sato[2], Yaichi Kawakatsu[3], Ryoko Morinobe[1], Lalita Jantean[1], Hejin Son[1], Ken-ichi Kurotani[3], Michitaka Notaguchi[1,3] ([1]Grad. Sch. Bioagri. Sci., Univ. Nagoya, [2]Institute of ITbM., Univ. Nagoya, [3]Biosci & Biotech Center., Univ. Nagoya)	3pD07 Characterization and molecular improvement of isothiocyanate-based inhibitors on stomatal opening Yusuke Aihara[1,2], Bumpei Maeda[3], Kanna Goto[3], Mika Nomoto[4,5], Koji Takahashi[4], Shigeo Toh[4,6], Wenxiu Ye[4,7], Yosuke Toda[1,8], Yasuomi Tada[4,5], Ayato Sato[1], Kenichiro Itami[1,4], Kei Murakami[1,3], Toshinori Kinoshita[1,4] ([1]ITbM, Nagoya Univ., [2]PRESTO, JST, [3]Grad. Sch. Sci. Tech., Kwansei Gakuin Univ., [4]Grad. Sch. Sci., Nagoya Univ., [5]Cent. Gene Res., Nagoya Univ., [6]Grad. Sch. Agr., Meijo Univ., [7]Inst. Adv. Agri. Sci., Peking Univ., [8]Phytometrics Co., Ltd.)
15:15		3pB08 Identification of GIPC sphingolipid phospholipases in Arabidopsis Sho Sanada[1], Rumana Yesmin Hasi[2], Tamotsu Tanaka[2], Hiroyuki Imai[3], Masatoshi Yamaguchi[1], Maki Kawai-Yamada[1], Toshiki Ishikawa[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Fac. Biosci. Biotech., Tokushima Univ., [3]Grad. Sch. Nat. Sci., Konan Univ.)	3pC08 A cell wall-modifying gene-dependent CLE peptide transport in conferring drought resistance Satoshi Endo, Hiroo Fukuda (Fac. Bioenviron. Sci., Kyoto Univ. Adv. Sci.)	3pD08 Analysis of blue light-induced phosphorylated/dephosphorylated proteins in guard cells Kohei Fukatsu[1], Yuki Hayashi[1], Takamasa Suzuki[2], Keiko Kuwata[3], Toshinori Kinoshita[1,3] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Dep. Biol. Chem., Chubu Univ., [3]ITbM, Nagoya Univ.)
15:30		3pB09 Acylated Plastoquinone is a Novel Neutral Lipid Accumulated in Cyanobacteria Toshiki Ishikawa[1], Shunya Takano[1], Riko Tanikawa[2], Takashi Fujihara[3], Kimie Atsuzawa[3], Yasuko Kaneko[1], Yukako Hihara[1] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Fac. Sci., Saitama Univ., [3]Comp. Anal. Cent. Sci., Saitama Univ.)	3pC09 E Ubiquitination-mediated xylem vessel element formation in response to pathogen in plants Ya Ma[1], Rune Kurokawa[1], Ryosuke Sano[2], Kei Hiruma[3], Taku Demura[2], Misato Ohtani[1,2] ([1]Grad. Sch. Front. Sci., Univ. Tokyo, [2]INST. Div Biol Sci., NAIST, [3]Grad. Sch. Art Sci., Univ. Tokyo)	3pD09 Analysis of plasma membrane H$^+$-ATPase phosphorylation and stomatal opening using protein kinase inhibitors Shogo Kuwayama[1], Koji Takahashi[1], Maki Hayashi[1,2], Ayato Sato[3], Toshinori Kinoshita[1,3] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Grad. Sch. Life Sci., Tohoku Univ., [3]ITbM)
15:45		3pB10 Isolation and characterization of *achs4*, an *Arabidopsis* mutant with achlorophyllous stomata Boseok Song, Sho Yamagaki, Tomoki Obata, Sakura Nishimura, Reona Okuma, Koh Iba, Juntaro Negi (Kyushu University, Japan)	3pC10 Identification of the enzyme producing reactive oxygen species in boron-deprived Arabidopsis roots Mako Sawada, Daisuke Umeki, Kentaro Ifuku, Masaru Kobayashi (Grad. Sch. Agr., Kyoto Univ.)	3pD10 Regulation of stomatal movement and plasma membrane H$^+$-ATPase by PP2C.Ds Daichi Kinoshita[1], Miya Mizutani-Aihara[1,2], Taku Sakakibara[1], Kosuke Murakami[1], Akinori Tange[1], Eigo Ando[3], Toshinori Kinoshita[1,2] ([1]Div. Biol. Sci., Grad. Sch. Sci., Nagoya Univ., [2]ITbM, Nagoya Univ., [3]Dep. Biol. Sci., Sch. Sci., Univ. Tokyo)
16:00		3pB11 PECT1, a rate-limiting enzyme in phosphatidylethanolamine biosynthesis, is involved in the regulation of stomatal movement in *Arabidopsis* Juntaro Negi[1], Tomoki Obata[1], Sakura Nishimura[1], Boseok Song[1], Sho Yamagaki[1], Natsumi Hoshino[2], Kohei Fukatsu[3], Toshinori Kinoshita[3,4], Ikuo Nishida[2], Koh Iba[1] ([1]Dept. Biol., Fac. Sci., Kyushu Univ., [2]Grad. Sch. Sci. Eng., Saitama Univ., [3]Grad. Sch. Sci., Nagoya Univ., [4]WPI-ITbM, Nagoya Univ.)		

Room E	Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Plant hormones/ Signaling molecules	Environmental response B/ Environmental stresses	Flowering/Clock	Plant-organism interaction B					
3pE06 Genome-Wide Association Study of a Fairy Chemical AOH (2-aza-8-oxohypoxanthine) Response in Rice Core Collections Junji Shinada[1], Jing Wu[2,3], Hirokazu Kawagishi[2,3], Hiroto Yamashita[2], Takashi Ikka[2,4] ([1]Graduate School of Agriculture, Shizuoka University, [2]Faculty of Agriculture, Shizuoka University, [3]Research Institute for Mushroom Science, Shizuoka University, [4]Research Institute of Green Science and Technology, Shizuoka University)	3pF06 Arabidopsis group B1 Raf-like protein kinases are dephosphorylated in an osmotic stress-dependent manner Yoshiaki Kamiyama, Sotaro Katagiri, Kota Yamashita, Yangdan Li, Taishi Umezawa (BASE, Tokyo Univ. Agric. Tech.)		3pH06 Identification of a volatile diglycosylation enzyme to reinforce herbivory defense in tomato species Eiichiro Ono[1], Koichi Sugimoto[2], Kenji Matsui[3], Hiroshi Ezura[2], Toshiyuki Ohnishi[4], Junji Takabayashi[5] ([1]Res. Inst., Suntory Global Innovation Center Ltd., [2]T-PIRC., Tsukuba Univ., [3]Facul. Agric., Yamaguchi Univ., [4]RIGST, Shizuoka Univ., [5]CER., Kyoto Univ.)		Symposium S09 A frontier in plant sensing and receptor research (13:30–16:30)			14:45
3pE07 Functional characterization of novel compounds that affect signaling pathway in stomatal opening Kwang-chul Shin[1], Yusuke Aihara[1], Shigeo Toh[2], Ayato Sato[3], Toshinori Kinoshita[1,3] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Dept. Agr. Resour. Sch., Meijo Univ., [3]WPI-ITbM, Nagoya Univ.)	3pF07 MBD10 is involved in leaf senescence in the Arabidopsis ABA response Yangdan Li[1], Fuko Minegishi[1], Yuki Tamura[1], Yoshiaki Kamiyama[1], Kota Yamashita[1], Sotaro Katagiri[1], Naoto Kawakami[2], Taishi Umezawa[1] ([1]Tokyo Univ. Agric. Tech., BASE, [2]Meiji Univ., Grad. Sch. Agric.)		3pH07 Search for regulatory factors of plasmodesmata formation at the parasitic interface between *Cuscuta campestris* and *Arabidopsis thaliana* Mizuki Ogura, Koh Aoki (Grad. Sch. Agric., Osaka Metro. Univ.)					15:00
3pE08 *BSH2* Is a Novel Gene Involved In Promotion of Plant Growth and Drought Stress Resistance via Brassinosteroid Signaling Rina Su[1], Ayumi Yamagami[1], Tomoko Miyaji[2], Nobutaka Mitsuda[3], Masaaki Sakuta[4], Tadao Asami[5], Kazuo Shinozaki[2], Takeshi Nakano[1] ([1]Kyoto Univ., [2]RIKEN · CSRS, [3]AIST, [4]Ochanomizu Univ., [5]Tokyo Univ.)	3pF08 Genetic Analyses Of *acquired osmotolerance-defective 12 (aod12*) Mutant Isolated From An Osmotolerant *A. thaliana A*ccession Koya Kobayashi[1], Keisuke Tanaka[2], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri, [2]Nodai Genome Cent., Tokyo Univ. of Agri.)		3pH08 Regulation of mRNA transport system between parasitic plant, *Cuscuta campestris*, and host plant Aine Taeko Yabusako, Koh Aoki (Grad, Sch, Agric., Osaka Metro. Univ)					15:15
3pE09 A novel protein BIL8 positively regulates plant growth via brassinosteroid signaling Zhana Chagan[1], Ayumi Yamagami[1], Genki Nakata[2], Minami Matsui[3], Tetsuo Kushiro[2], Tadao Asami[4], Takeshi Nakano[1] ([1]Grad. Sch. Bios., Kyoto Univ., [2]Grad. Sch. Agri., Meiji Univ., [3]RIKEN, [4]Grad. Sch. Agri. Life Sci., Univ. Tokyo)	3pF09 Loss of *SABRE* Gene Caused Detrimental Autoimmunity and Reduced Osmotic Tolerance in *Arabidopsis* Yako Takahashi[1], Hirotaka Ariga[2], Kohji Nishimura[3], Keisuke Tanaka[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]Dept. Life sci., Shimane Univ., [4]Nodai Genome Cent., Tokyo Univ. of Agri.)		3pH09 Ⓔ Host salt supply causes decreased growth in the facultative root hemiparasite *Phtheirospermum japonicum* attached to *Arabidopsis thaliana* Clarissa Frances Frederica[1], Louis Irving[2] ([1]Grad. Sch. Sci. Tech., Univ. of Tsukuba, [2]Fac. Life Environ. Sci., Univ. of Tsukuba)					15:30
3pE10 Role Of Brassinosteroid Biosynthesis Regulation In Thermoinhibition Of Arabidopsis Seed Germination Natsuki Tachibana[1], Satoko Okada[1], Motoki Yamaguchi[1], Yuri Kanno[2], Mitsunori Seo[2], Naoto Kawakami[1] ([1]Grad. Sch. Agri., Univ. Meiji, [2]CSRS., Riken)	3pF10 Dissecting of genetic mechanism in osmotolerance among *Arabidopsis thaliana* accessions Yusuke Murakoshi[1], Kosuke Banba[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 Cent., Tokyo Univ. of Agri.)		3pH10 Ⓔ Influence of Light Level and Nutrient Supply to Parasitized and Unparasitized Roots in the Red Clover - *Orobanche minor* Association Louis Irving, Mao Hattori (Life Env. Sci., Univ. Tsukuba)					15:45
3pE11 Visualization of intracellular calcium signals in Arabidopsis leaves exposed to green leaf volatiles Yuri Aratani, Takuya Uemura, Masatsugu Toyota (Department of Biochemistry and Molecular Biology Saitama University)	3pF11 Dissecting Mechanisms Underlying Loss of Acquired Tolerance in *Arabidopsis thaliana* Wt-1 Takahiro Hirano[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)							16:00

Ⓔ=Presentation in English

● Day 3, Fri., March 17, PM (13:30–16:30)

Time	Room A	Room B	Room C	Room D
	Cell cycle/Cell division	Primary metabolism	Cell wall	Photoreceptors/Photoresponses
16:15				

Room E	Room F	Room G	Room H	Room I	Room X	Room Y	Room Z	Time
Plant hormones/ Signaling molecules	Environmental response B/ Environmental stresses	Flowering/Clock	Plant-organism interaction B					
3pE12 Screening of Volatile Infochemicals Evoking Transient Increase of Cytosolic [Ca^{2+}] by Using Arabidopsis Overexpressing GCaMP3 Yasuo Yamauchi[1], Ryuya Sakamoto[1], Masatsugu Toyota[2], Jyunji Takabayashi[3], Masaharu Mizutani[1], Yukihiro Sugimoto[1] ([1]Grad. Sch. Agr., Kobe Univ., [2]Grad. Sch. Sci. Eng., Saitama Univ., [3]CER., Kyoto Univ.)	3pF12 Nuclear Pore Complexes Play an Important Role in Plant Osmotic Tolerance Through the Transport of Immune Response-related Factors Kento Mori[1], Masashi Tamura[1], Kohji Nishimura[2], Hirotaka Ariga[3], Keisuke Tanaka[4], Izumi Yotsui[1], Yoichi Sakata[1], Teruaki Taji[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Dept. Life Sci., Shimane Univ., [3]Res. Cent. of Gen. Res., NARO, [4]Nodai Genome Cent., Tokyo Univ. of Agri.)				Symposium S09 A frontier in plant sensing and receptor research (13:30–16:30)			16:15

E=Presentation in English

List of Chairpersons of Oral Presentations

Day 1, Wed., March 15, AM

1aA01-1aA12	Photosynthesis	Ritsuko Fujii Shinji Masuda Yutaka Shibata
1aB01-1aB11	Membrane trafficking	Emi Ito Junpei Takano Naoki Minamino
1aC01-1aC10	Genome function/gene regulation	Taiji Kawakatsu Takashi Hirayama Yosuke Tamada
1aD01-1aD10	Environmental response A/Physiological responses	Hiroshi Kudoh Takatoshi Kiba Kohki Yoshimoto
1aE01-1aE12	Plant hormones/Signaling molecules	Minoru Ueda Hidefumi Shinohara Mari Ogawa-Ohnishi
1aF01-1aF12	Environmental response B/Environmental stresses	Mie Shimojima Shoko Tsuboyama Takahiro Ishikawa
1aG01-1aG12	Development/Morphogenesis	Makoto Shirakawa Hikari Matsumoto Takeshi Kuroha
1aH01-1aH07	Photoreceptors/Photoresponses	Youichi Kondou Mayu Nakagawa
1aI01-1aI09	Systems biology	Yasunori Ichihashi Tomoaki Nishiyama Miyuki Nakata

Day 1, Wed., March 15, PM

1pA01-1pA12	Photosynthesis	Hiroko Takahashi Yuki Kato Haruhiko Jimbo
1pB01-1pB11	Biomembrane/Ion and solute transport	Noriyuki Konishi Takayuki Sasaki Keitaro Tanoi
1pC01-1pC11	Genome function/gene regulation	Toshihiro Arae Mio Shibuta K. Munetaka Sugiyama
1pD01-1pD08	Specialized (secondary) metabolism	Masaaki Sakuta Kai Uchida Toshiyuki Waki
1pE01-1pE12	Reproduction	Katsuyuki T. Yamato Minako Ueda Takashi Okamoto
1pF01-1pF12	Environmental response B/Environmental stresses	Miho Ikeda Genki Horiguchi Katsuhiro Shiono
1pG01-1pG12	Development/Morphogenesis	Akihito Mamiya Yoko Ikeda Ryuji Tsugeki
1pH01-1pH10	Plant-organism interaction B	Hanna Nishida Takuya Suzaki Yasuyuki Kawaharada
1pI01-1pI08	Systems biology	Takeshi Obayashi Yuichi Aoki Nozomu Sakurai
1pY01-1pY11	New technology	Shin-ichi Arimura Yuriko Osakabe Kazuhito Akama

Day 2, Thu., March 16, AM

2aA01-2aA11	Photosynthesis	Hajime Wada Yuu Hirose Iwane Suzuki
2aB01-2aB07	Biomembrane/Ion and solute transport	Naoki Yamaji Takehiro Kamiya

2aC01-2aC12	Organelles/Cytoskeleton	Takema Sasaki Hiroyasu Motose Shizuka Koshimizu
2aD01-2aD09	Specialized (secondary) metabolism	Masami Yokota Hirai Miyako Kusano Seiji Takahashi
2aE01-2aE12	Reproduction	Erika Toda Sota Fujii Sumie Ishiguro
2aF01-2aF12	Environmental response B/Environmental stresses	Nobuyuki Takatani Yaichi Kawakatsu Satoshi Kidokoro
2aG01-2aG12	Development/Morphogenesis	Yukiko Yasui Takaaki Yonekura Yuuki Sakai
2aH01-2aH12	Plant-organism interaction A	Shigetaka Yasuda Koichi Sugimoto Kohji Yamada
2aI01-2aI07	New technology	Kaori Kohzuma Akira Nozawa Kazuya Ishikawa

Day 3, Fri., March 17, AM

3aA01-3aA12	Photosynthesis	Shinya Wada Yuki Okegawa Keisuke Yoshida
3aB01-3aB11	Primary metabolism	Yasuhito Sakuraba Toshihisa Kotake Shin-nosuke Hashida
3aC01-3aC12	Organelles/Cytoskeleton	Shohei Nosaki Mitsumasa Hanaoka Yuki Sakamoto
3aD01-3aD09	Environmental response A/Physiological responses	Miyo T. Morita Shoji Segami Kenji Hashimoto
3aE01-3aE12	Plant hormones/Signaling molecules	Naoyuki Uchida Shinjiro Yamaguchi Kiyoshi Mashiguchi
3aF01-3aF12	Environmental response B/Environmental stresses	Daisuke Todaka Teruaki Taji Shigeru Hanamata
3aG01-3aG12	Development/Morphogenesis	Mimi Hashimoto-Sugimoto Tatsuaki Goh Keita Tanaka
3aH01-3aH07	Plant-organism interaction B	Kana Miyata Rikako Hirata Momoko Takagi

Day 3, Fri., March 17, PM

3pA01-3pA07	Cell cycle/Cell division	Takashi Ishida Kaoru Yoshiyama Michiko Sasabe
3pB01-3pB11	Primary metabolism	Toshiki Ishikawa Juntaro Negi Yuki Nakamura
3pC01-3pC10	Cell wall	Michitaka Notaguchi Kazuyuki Kuchitsu Satoshi Endo
3pD01-3pD10	Photoreceptors/Photoresponses	Shota Yamauchi Eigo Ando Kosei Iwabuchi
3pE01-3pE12	Plant hormones/Signaling molecules	Hitoshi Sakakibara Mikiko Kojima Naoto Kawakami
3pF01-3pF12	Environmental response B/Environmental stresses	Izumi Yotsui Fuminori Takahashi Hiroshi Shimada
3pG01-3pG05	Flowering/Clock	Akane Kubota
3pH01-3pH10	Plant-organism interaction B	Takuji Ichino Yushiro Fuji Jun Murata

General Presentations

Program of Poster Presentations

- Poster viewings and discussions will be carried out using the ORSAM portal site and its Comments section during the annual meeting (from March 10th, 9:00 to March 14th, 16:00).

- Poster discussions using Zoom Meeting are also scheduled for from March 13th, 9:00 to 16:00. It should be noted that it is NOT necessary for a presenter to create and register a Zoom ID. The organizing committee will arrange the Zoom Meeting for poster discussion.

- Poster numbers are divided into PA–PD groups, and core times have been set for each group during the time periods listed below. Presenters are requested to enter their respective Zoom breakout rooms during the corresponding core time and discuss with the participants.

March 13th (Mon) AM PA/PB: 9:00–10:30, PC/PD: 10:30–12:00
March 13th (Mon) PM PA/PC: 13:00–14:30, PB/PD: 14:30–16:00

■ Photosynthesis

PA　Fri., March 17　09:00–10:30 / 13:00–14:30

PA-001 Dehydration of zinc bacteriochlorophyllide *d* and its homologs by BchF and BchV catalyzing the hydration of C3-vinyl group, and its application

Mitsuaki Hirose[1], Yusuke Tsukatani[2], Jiro Harada[3], Hitoshi Tamiaki[1] ([1]Grad. Sch. Life Sci., Ritsumeikan Univ., [2]Inst. Extra-cutting-edge Sci. Technol. Avant-garde Res. (X-star), Jap. Agency Marine-Earth Sci. Technol. (JAMSTEC), [3]Dept. Med. Biochem., Kurume Univ. Sch. Med.)

PA-005 Identification and Functional Analysis of Red-Light Induced FCP in *Chaetoceros gracilis*

Midori Nakamura[1], Minoru Kumazawa[1], Ryo Nagao[2], Noriko Ishikawa[1], Jian-Ren Shen[2], Kentaro Ifuku[1] ([1]Grad. Sch. Agri., Kyoto Univ., [2]RIIS, Okayama Univ.)

PA-009 Comparison of the photosystem protein distribution on the thylakoid membranes separated by differential centrifugation between two barley cultivars, "Ehimedahadaka-1" and "Sarab-1"

Tomoki Shigematsu, Kimika Hoshi, Akihiro Saito, Kyoko Higuchi (Tokyo University of Agriculture, Faculty of applied Biological Science)

PA-013 The amino acid substitution, PETC-Pro171Leu, slowdown electron transfer in the cytochrome b_6f complex under anoxic conditions in the green alga *Chlamydomonas reinhardtii*

Shin-ichiro Ozawa[1], Felix Buchert[2], Ruby Reuys[2], Michael Hippler[1,2], Yuichiro Takahashi[3] ([1]Institute of Plant Science and Resources, Okayama University, [2]Institute of Plant Biology and Biotechnology, University of Münster, [3]Research Institute for Interdisciplinary Science, Okayama University)

PA-017 Characterization of DLDG1 that controls H^+ translocation across the envelope membrane of chloroplasts

Hinako Kataoka[1], Mai Duy Luu Trinh[1], Chikahiro Miyake[2], Shinji Masuda[1] ([1]Dep. Life Sci. Technol., Tokyo Inst. Tech, [2]Grad. Sch. Agr., Kobe Univ)

PA-021 Chloroplast functions in *Arabidopsis* cultured green cells

Kotaro Ogasa[2], Kento Tomoishi[3], Satomi Takeda[1] ([1]Dept. Biological Chemistry, Grad. Sch. Sci., Osaka Metropolitan Univ., [2]Dept. Biological Science, Grad. Sch. Sci., Osaka Prefecture Univ., [3]Dept. Biological Science, Fuclty of Sci., Osaka Prefecture Univ.)

PA-025 Environmental response of *Parachlorella* cells attached to a solid surface

Tomoharu Ishikawa, Yutaro Hirakawa, Hiroki Miyauchi, Katsuhiko Okada, Norihiro Sato, Shoko Fujiwara (School of Life Sciences, Tokyo Univ. of Life Sciences)

PB　Fri., March 17　09:00–10:30 / 14:30–16:00

PB-002 Substrate specificity for the *in vitro* SGR enzymatic reactions of synthetic chlorophyll derivatives possessing a variety of C3- and C8-subsituents

Soma Sato[1], Mitsuaki Hirose[1], Ryouichi Tanaka[2], Hisashi Ito[2], Hitoshi Tamiaki[1] ([1]Life Sci., Ritsumeikan Univ., [2]Inst. Low Temp. Sci., Hokkaido Univ.)

PB-006 PSI-PSII megacomplexes are increased in stroma thylakoid membranes isolated from barley grown under the prolonged iron-deficient condition

Akihiro Saito, Ryoko Yamada, Takahiro Matsuzaki, Shuhei Sumiki, Kyoko Higuchi (Fac. Appl. Biosci., Tokyo Univ. Agric)

PB-010 Effects of inhibition of the mitochondrial respiratory chain to the regulation of photosynthetic electron transport system

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

PB-014 Functions of the novel pyrenoid factor PyShell in the marine diatom *Phaeodactylum tricornutum*

Kohei Ueda, Ginga Shimakawa, Yusuke Matsuda (Grad. Sch. Sci. Univ. Kwangaku. Matsuda Lab)

PB-018 Loss of the *rsbU* gene enhances heterotrophic growth in the dark and represses photoautotrophic growth in the cyanobacterium *Leptolyngbya boryana*

Marie Nishio[1], Kazuma Uesaka[1], Shintaro Hida[1], Kunio Ihara[2], Nobuyuki Takatani[3], Haruki Yamamoto[1], Yuichi Fujita[1] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]Gene Res. Ctr., Nagoya Univ., [3]Dept. Biochem., Chubu Univ.)

PB-022 Screening for the transcription factors enhancing the photosynthetic activity using the seed library of the chimeric repressor-expressing transgenic plants

KwiMi Chung[1], Shunichi Takahashi[2], Masaru Ohme-Takagi[3], Nobutaka Mitsuda[1] ([1]Bioprod. Res. Inst./GZR, AIST, [2]Tropical Center, Univ. Ryukyus, [3]Grad. Sch. Sci. Eng, Saitama. Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-003 Regulation of antenna and energy transfer in photosystems of *Acaryochloris marina* in response to different light qualities

Zhe Wang[1], Miyu Furutani[1], Yoshifumi Ueno[2], Reona Toyofuku[3], Tatsuya Tomo[3] ([1]Grad. Sch. Sci., Kobe Univ., [2]Inst. Arts Sci., Tokyo Univ. Sci., [3]Grad. Sch. Sci., Tokyo Univ. Sci.)

PC-007 Structural dynamics of the Mn_4CaO_5 cluster during the S_2-S_3 transition in photosystem II

Hongjie Li[1], Yoshiki Nakajima[1], Daichi Yamada[2], Kana Hashimoto[1], Minoru Kubo[2,3], So Iwata[3,4], Michihiro Suga[1], Jian-Ren Shen[1] ([1]Research Institute for Interdisciplinary Science and Graduate School of Natural Science and Technology, Okayama University, Okayama, Japan, [2]Graduate School of Science, University of Hyogo, Hyogo, Japan, 3RIKEN SPring-8 Center, Hyogo, Japan, [3]RIKEN SPring-8 Center, Hyogo, Japan, [4]Department of Cell Biology, Graduate School of Medicine, Kyoto University, Kyoto, Japan)

PC-011 Analysis of NPQ7 expression suppressed lines of C_4 *Flaveria bidentis* showing defects in PSII activity

Ai Ishizaki[1], Sayaka Koshi[1], Ryouichi Tanaka[2], Atsushi Takabayashi[2], Kentaro Ifuku[3], Yuri Munekage[1] ([1]Grad. Sch. Sci. Tech., Kwansei Gakuin Univ., [2]Inst. Low Temperature Science., Hokkaido Univ., [3]Grad. Sch. Arg., Kyoto Univ.)

PC-015 Elucidation of sink-source transition mechanism in soybean leaves using radioisotope-labeled carbons

Ai Soma[1], Ryohei Sugita[2], Yuko Kurita[1], Natsuko I. Kobayashi[1], Keitaro Tanoi[1], Tomoko M. Nakanishi[1] ([1]Grad. Sch. Agri. Life Sci. UTokyo, [2]Nagoya University)

PC-019 The construction of heterocyst-forming cyanobacteria mutants that selectively express the alternative nitrogenase, and its possible usefulness in photobiological H_2 production

Daisuke Bando[1], Takahiro Matsuda[1], Hidehiro Sakurai[2], Kazuhito Inoue[1,2], Takeshi Sato[1] ([1]Dept. Biol. Sci., Grad. Sch. Sci., Kanagawa Univ., [2]Res. Inst. Integr. Sci., Kanagawa Univ.)

PC-023 Diversity and evolution of membrane-bound cytochrome c_y participating in respiration and photosynthesis in aerobic anoxygenic photosynthetic bacteria

Sakiko Nagashima[1,2], Kazuhito Inoue[2], Kenji Nagashima[1,2] ([1]Res. Inst. Integr. Sci., Kanagawa Univ., [2]Biol. Sci., Fac. Sci., Kanagawa Univ.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-004 Different modifications in two types of *Euglena gracilis* under a far-red light condition

Yuki Sorihashi[1], Yoshifumi Ueno[2], Jian-Ren Shen[3], Ryo Nagao[3], Seiji Akimoto[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Inst. Arts Sci., Tokyo Univ. Sci., [3]RIIS, Okayama Univ.)

PD-008 Structures and binding modes of herbicides in photosystem II

Yoshiki Nakajima[1], Naoki Matsubara[2], Jian-Ren Shen[1,2] ([1]Research Institute for Interdisciplinary Science, Okayama University, Japan, [2]Graduate School of Natural Science and Technology, Okayama University, Japan)

PD-012 The analysis of guard cell photosynthesis by microscopic imaging methods

Azusa Mori[1], Sumio Iwai[2], Kintake Sonoike[1] ([1]Fac Edu. Integ. Arts Sci., Waseda Univ, [2]Fac Agri., Kagoshima Univ)

PD-016 Enhancement of Accumulation of Photosynthetic Pigments and Proteins during Chloroplast Biogenesis by Sulfide in *Arabidopsis thaliana*

Zulnaray Osman, Takayuki Shimizu, Tatsuru Masuda (Grad. Sch. Art Sci., Uni Tokyo)

PD-020 Effects of pericarp photosynthesis on sugar metabolisms in European pear

Wakana Aoki[1], Atsuko Miyagi[2], Maki Kawai-Yamada[3], Hideki Murayama[2] ([1]Grad. Sch. Agr., Yamagata Univ., [2]Fac. Agr., Yamagata Univ., [3]Grad. Sch. Sci. Eng., Saitama Univ.)

PD-024 The reaction properties on the donor/acceptor sides in the photosynthetic reaction center of heliobacteria

Risa Kojima[1], Yuki Makino[2], Chihiro Azai[3], Akihiro Kawamoto[4], Genji Kurisu[4], Hirozo Oh-oka[1,2] ([1]CELAS, Osaka Univ., [2]Grad. Sch. Sci., Osaka Univ., [3]College of Life Sciences, Ritsumeikan Univ., [4]Inst. Protein Res., Osaka Univ.)

■ Primary metabolism

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-029 Roles of NIGT1 transcriptional factors and LBD proteins in Gln-induced repression of nitrate transporter genes

Yosuke Torii, Mineko Konishi, Yasuhito Sakuraba, Shuichi Yanagisawa (Agro-Biothechnology Research Center, Graduate School of Agricultural and Life Sciences, The University of Tokyo)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-026 Nitrogen response and cellular distribution of OsATL5, a paralog of the vacuolar glutamine efflux transporter, in rice
Toshihiko Hayakawa, Yusei Kodama (Grad. Sch. Agri. Sci., Tohoku Univ.)

PB-030 Ammonium-induced regulation of GS/GOGAT gene in Arabidopsis root
Soichi Kojima, Keiki Ishiyama (Grad. Sch. Agr., Tohoku Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-027 Functional analyses of SnRK1 regulatory subunits in nitrogen-responsive flowering in *Arabidopsis thaliana*
Akio Kubo[1], Miho Sanagi[2,3], Yasutake Sato[1], Rolland Filip[4], Junpei Takagi[2], Takeo Sato[2] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Fac. Sci., Hokkaido Univ., [3]CRIS, Hokkaido Univ., [4]Biology Department, KU Leuven)

PC-031 Analysis of oligogalactolipid synthesis and function in *Marchantia Polymorpha*
Shinsuke Shimizu[1], Koichi Hori[1], Kimitsune Ishizaki[2], Mie Shimojima[1], Hiroyuki Ohta[1] ([1]Sch. Life Sci. and Tech., Tokyo Tech, [2]Grad. Sch. of Sci., Kobe Univ.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-028 Functional analysis of the transcription factor FBH4 regulating nitrogen-responsive flowering in Arabidopsis
Miho Sanagi[1,2], Van Quoc Giang[3], Akio Kubo[3], Yasutake Sato[3], Soichi Inagaki[4], Junpei Takagi[1], Takeo Sato[1] ([1]Fac. Sci., Hokkaido Univ., [2]CRIS, Hokkaido Univ., [3]Grad. Sch. Life Sci., Hokkaido Univ., [4]Grad. Sch. Sci, Univ. Tokyo)

■ Specialized (secondary) metabolism

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-034 Cross-species Comparative Genomics of Transcriptional Regulators in the Hydroxycinnamate Biosynthetic Pathway
Maria Kenosis Emmanuelle Lachica, Shinichiro Komaki, Mutsumi Watanabe, Takayuki Tohge (Nara Institute of Science and Technology)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-035 Non-targeted Analysis of Volatile Organic Compounds in Soybean(*Glycine max*) Grown Field Soil
Hikari Kuchikata[1], Naoto Nihei[2], Shoichiro Hamamoto[3], Yasunori Ichihashi[4], Miyako Kusano[5] ([1]Grad. Sch. Agri Bio. Sci Tech., Univ. Tsukuba, [2]Fac. Food Agri. Sci., Fukushima Univ., [3]Grad. Sch. Agri Life. Sci., Univ. Tokyo, [4]BRC, RIKEN, [5]Life & Env. Sci., Univ. Tsukuba)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-032 UPLC-Q-TOF-MS analysis of hydrolyzable tannins in an aluminum-resistant tree *Eucalyptus camaldulensis*
Ko Tahara[1], Hideyuki Ito[2], Mitsuru Nishiguchi[1] ([1]Forestry and Forest Products Research Institute, [2]Faculty of Health and Welfare Science, Okayama Prefectural University)

PD-033 Heteologous gene expression enables biosynthesis of hydrolyzable tannin precursors in herbaceous model plants
Chihiro Yamamizo[1], Nobutaka Mitsuda[2], Ko Tahara[1] ([1]FFPRI, [2]AIST)

■ Biomembrane/Ion and solute transport

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-037 Tissue Distribution and Physiological Roles of Aquaporins in *Nopalea cochenillifera*
Ryosuke Sato[2], Hikaru Sakakibara[1], Shintaro Mizuguchi[1], Ikuko Mido[1], Takamasa Suzuki[1], Takanori Horibe[1], Takashi Tsuge[1], Maki Katsuhara[3], Masayoshi Maeshima[1] ([1]Chubu Univ., [2]Forest BioRes. Cent., [3]IPSR, Okayama Univ.)

PA-041 Regulation of plasma membrane H^+-ATPase activity in streptophyte alga *Klebsormidium nitens*
Koji Takahashi[1,2], Koichi Hori[3], Hiroyuki Ohta[3], Toshinori Kinoshita[1,2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]ITbM, Nagoya Univ., [3]Sch. Life Sci. Tech., Tokyo Tech.)

PB **Fri., March 17 09:00–10:30 / 14:30–16:00**

PB-038 Outward-rectifying K^+ channel SPORK2 from *Samanea saman* exhibits temperature-sensitive ion transport activity

Yuki Muraoka[1], Gangqiang Yang[2], Shintaro Munemasa[3], Yusuke Takeuchi[1], Yasuhiro Ishimaru[4], Yoshiyuki Murata[3], Nobuyuki Uozumi[4], Minoru Ueda[1,5] ([1]Grad. Sch. Sci., Tohoku Univ., [2]Sch. Pharm., Yantai Univ., [3]Grad. Sch. Environ. and Life Sci., Okayama Univ., [4]Grad. Sch. Eng., Tohoku Univ., [5]Grad. Sch. Life Sci., Tohoku Univ.)

PB-042 Simultaneous imaging of potassium and sodium dynamics using Compton camera

Kyoko Higuchi[1], Nobuo Suzui[2], Yong-Gen Yin[2], Yuta Miyoshi[2], Yusaku Noda[2], Kazuyuki Enomoto[2], Yuto Nagao[2], Mitsutaka Yamaguchi[2], Makoto Sakai[3], Hayato Ikeda[4,5], Hidetoshi Kikunaga[4], Naoki Kawachi[2] ([1]Tokyo Univ. Agric, [2]TARRI, QST, [3]HMC, Gunma Univ., [4]ELPH, Tohoku Univ., [5]CYRIC, Tohoku Univ.)

PC **Fri., March 17 10:30–12:00 / 13:00–14:30**

PC-039 Analysis of CO_2 transport activity of plasma membrane-associated aquaporins of tomato

Anri Mitsumoto, Shigeko Utsugi, Yoshiyuki Tsuchiya, Maki Katsuhara, Izumi Mori (Mitsumoto, Anri)

PC-043 Controls of the water transport activities of *Arabidopsis* tonoplast intrinsic proteins 3, AtTIP3s and the effects on seed development and germination

Shigeko Utsugi, Maki Katsuhara (IPSR, Okayama University)

PD **Fri., March 17 10:30–12:00 / 14:30–16:00**

PD-036 Na^+ and K^+ Transport Mechanism of Ion Channel Aquaporins

Shuntaro Ono, Maki Katsuhara (Univ. Okayama, IPSR)

PD-040 Effects of a mutation in the *Tonoplast Intrinsic Protein 2;2* (*TIP2;2*) gene on metabolites in leaves of *Arabidopsis thaliana*

Yuka Motohiro[1], Ririka Doi[1], Tomoko Matsumoto[2], Jun Kikuchi[2], Tsuneo Kuwagata[3], Yuko T. Hanba[4], Kumi Sato-Nara[5] ([1]Grad. Sch. Human. Sci., Nara Women's Univ., [2]CSRS, RIKEN, [3]NIAES, NARO, [4]Dep. Appl. Biol., Kyoto Inst. Tech., [5]Div. Nat. Sci., Nara Women's Univ.)

■ Membrane trafficking

PA **Fri., March 17 09:00–10:30 / 13:00–14:30**

PA-045 Dynamics of the VAMP72 group in pollen tube elongation

Anna Toude[1], Emi Ito[3], Yoko Ito[3], Kazuo Ebine[4,5], Takashi Ueda[4,5], Akihiko Nakano[6], Tomohiro Uemura[1,2] ([1]Undergrad. Sch. Sci., Biol., Ochanomizu Univ., [2]Grad. Sch. Humanities and Sciences, Ochanomizu Univ., [3]IHLS., Ochanomizu Univ., [4]Div. Cell. Dynamics, NIBB, [5]Dept. Basic Bio., SOKENDAI, [6]RIKEN RAP)

PD **Fri., March 17 10:30–12:00 / 14:30–16:00**

PD-044 Research on physiological function of novel proteins with Sytaxin6 N-terminal region

Sara Toude[1], Reina Nagao[2], Emi Ito[3], Yoko Ito[3], Yutaro Shimizu[4], Kei Yura[1,2,5], Akihiko Nakano[4], Tomohiro Uemura[1,2] ([1]Undergrad. Sch. Sci., Biol., Ochanomizu Univ., [2]Grad. Sch. Humanities and Sciences, Ochanomizu Univ., [3]IHLS., Ochanomizu Univ., [4]Live Cell Super-Resolution Imaging Research Team, RIKEN Center for Advanced Photonics., [5]School of Advanced Science and Engineering, Waseda Univ.)

■ Organelles/Cytoskeleton

PA **Fri., March 17 09:00–10:30 / 13:00–14:30**

PA-049 Suppression mechanism of early senescence phenotype in *atg5* mutant by DPD1 mutation

Tsuneaki Takami, Wataru Sakamoto (Inst. Plant Sci. Res., Okayama Univ.)

PA-053 Functional analysis of chloroplastic peptidoglycan-binding LysM proteins in *Physcomitrium patens*

Mizuki Kuronita[1], Keisuke Miyazaki[2], Katsuaki Takechi[3], Hitoshi Mori[4], Hiroyoshi Takano[3] ([1]Graduate School of Science and Technology, Kumamoto University, [2]Faculty of Science, Kumamoto University, [3]Faculty of Advanced Science and Technology, Kumamoto University, [4]Graduate School of Bioagricultural Sciences, Nagoya University)

PA-057 Functional analysis of ATG9, a sole transmembrane autophagy related protein, in plant autophagy

Ryoya Tadaki, Satoshi Kurosaki, Kazuya Inoue, Daiki Shinozaki, Kohki Yoshimoto (Sch. Agri., Meiji Univ.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-046 Characterization of rice mutants lacking organelle exonuclease DPD1

Md. Faridul Islam[1], Hiroshi Yamatani[2], Tsuneaki Takami[1], Makoto Kusaba[3], Wataru Sakamoto[1] ([1]Inst. Plant Sci. Res., Okayama Univ., [2]QST-Takasaki, [3]Grad. Sch. Integr. Sci., Hiroshima Univ.)

PB-050 RETICULATA RELATED 3 localized to the chloroplast inner envelope is involved in transcription of the chloroplast genome

Takumi Ito[1], Hayate Machino[1], Ryusei Inoue[1], Tsuyoshi Furumoto[2], Kenji Nishimura[1], Yuri Munekage[1] ([1]Grad. Sch. Sci. Tech., Kwansei Gakuin Univ., [2]Facu. Sch. Arg., Univ. Ryukoku.)

PB-054 Mechanisms of regulation for greening suppressor *BGHs* expression by BR signaling and light

Rino Akema[1], Ryo Tachibana[1], Ayumi Yamagami[1], Tadao Asami[2], Takeshi Nakano[1] ([1]Grad. Sch. Sci., Univ. Kyoto, [2]Grad. Sch. Sci., Univ. Tokyo)

PB-058 Overaccumulation of Starch Breakdown Products Triggers Autophagy-dependent Chloroplast Degradation

Sakuya Nakamura[1], Hiroyuki Ishida[2], Shinya Hagihara[1], Masanori Izumi[1] ([1]CSRS, Riken, [2]Grad. Sch. Agri. Sci., Tohoku Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-047 Exploring the Role of Chloroplast Nucleoids in the Maintenance of Pyrenoid, a Phase-separated Structure in Chloroplasts

Haruki Kanazawa, Mari Takusagawa, Aine Kawashima, Toshiharu Shikanai, Yoshiki Nishimura (Grad. Sch. Sci., Kyoto Univ.)

PC-051 Exploration of protein factors involved in the nucleus-chloroplast adhesion

Yuki Sakamoto, Shingo Takagi (Grad. Sch. Sci., Osaka Univ.)

PC-055 Cross-species Complementation Analyses Using *MurE* Mutants Showing the Giant Chloroplast Phenotype in *Physcomitrium patens* and Albino Traits in Arabidopsis

Takashi Imabeppu[1], Izumi Saito[1], Katsuaki Takechi[2], Hiroyoshi Takano[2] ([1]Graduate School of Science and Technology, Kumamoto University, [2]Faculty of Advanced Science and Technology, Kumamoto University)

PC-059 Comprehensive imaging analysis of peroxisomal membrane proteins in *Arabidopsis thaliana*

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

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-048 PpARC6 mediates FtsZ-ring remodeling at the division site of chloroplast in *Physcomitrium patens*

Thi Huong Do[1], Hiroyoshi Takano[2], Tomomichi Fujita[1] ([1]Hokkaido University, [2]Kumamoto University)

PD-052 Exploratory research on interacting factors of MFP1, a DNA-binding protein in the thylakoid membrane

Kousei Noto[1], Yoshiki Nishimura[2], Sho Fujii[1,2] ([1]Fac. Ag. Life Sci., Hirosaki Univ., [2]Grad. Sch. Sci., Kyoto Univ.)

PD-056 A novel factor is required for mitochondrial intron splicing in Arabidopsis thaliana

Brody Frink[1], Matthias Burger[2], Oren Ostersetzer-Biran[3], Mizuki Takenaka[1] ([1]Grad. Sch. Sci., Kyoto Univ., [2]Molecular Botany, Ulm Univ., [3]Alexander Silberman Inst. of Life Sci., The Hebrew Univ. of Jerusalem)

PD-060 Development of an Experimental System to Investigate Organelle Behavior in Darkness

Kota Tsuchida, Shingo Takagi, Yuki Sakamoto (Dept. Biol. Sci., Fac. Sci., Osaka Univ.)

■ Cell wall

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-061 Function of KONAJC1 protein in the synthesis of L-ascorbic acid

Megumi Miyagawa, Daisuke Takahashi, Toshihisa Kotake (Grad. Sch. Sci. & Eng., Saitama Univ.)

PA-065 Effects of soil potassium supply on ion adsorption properties of rice and tomato root surfaces

Keina Motegi[1], Satoshi Miyagi[2], Emi Kameoka[1,3], Yoshihiro Kobae[1,3], Nobutake Nakatani[1,2], Mikoto Kaneko[2], Mihoko Moriizumi[4], Junko Kasuga[5], Shingo Matsumoto[5], Noriharu Ae[4], Satoru Hobara[1,2] ([1]Grad. Sch. Daily Sci., Rakuno Gakuen Univ., [2]Dept. Env., Rakuno Gakuen Univ., [3]Dept. Sust. Agr., Rakuno Gakuen Univ., [4]Dept. Agr., Ryukoku Univ., [5]Fac. Life Env. Sci., Shimane Univ.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-062 Arabidopsis novel proteins involved in the formation of pollen exine 3D structure
Kota Suzuki, Kota Matsuoka, Kohei Tsuchida, Sumie Ishiguro (Bio-Agric. Sci., Nagoya Univ.)

PB-066 Micropillar devices for the assessment of root mechanical properties of A. thaliana
Marcel Pascal Beier[1,2], Yunshu Wang[2], Yuta Nakagawa[5], Andres Aguilar Ariza[2], Shumpei Hayashi[3], Kyoko Miwa[4], Akihiro Isozaki[5], Keisuke Goda[5,6,7], Hirotaka Hida[3], Toru Fujiwara[2] ([1]Faculty of Science/ Institute for the Advancement of Higher Education, Hokkaido University, Kita10 Nishi8, Kita-ku, Sapporo 060-0810, 060-0810 Japan, [2]Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, 1-1-1 Yayoi, Bunkyo, Tokyo, 113-8657, Japan, [3]Department of Mechanical Engineering, Graduate School of Engineering, Kobe University, 1-1 Rokkodai-cho, Nada-ku, Kobe 657-8501, Japan, [4]Division of Biosphere Science, Graduate School of Environmental Science, Hokkaido University, North-10, West-5, Kita-ku, Sapporo, Hokkaido 060-0810, Japan, [5]Department of Chemistry, Graduate School of Science, The University of Tokyo, 7-3-1 Hongo, Bunkyo, Tokyo, 113-0033, Japan, [6]Department of Bioengineering, Samueli School of Engineering, University of California, Los Angeles, 420 Westwood Plaza, 5121E Engineering V, Los Angeles, CA 90095, USA, [7]Institute of Technological Sciences, Wuhan University, Wuchang District, Wuhan City, Hubei 430072, China)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-063 Development of ectopic vascular cell induction system in a coniferous tree, *Cryptomeria japonica*
Ryosuke Sato, Ken-ichi Konagaya, Naoki Takata (Forest BioRes. Cent.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-064 Changes in Soluble Sugars and Cell Wall in Wheat Cultivars during Cold Acclimation
Sushan Chowhan[1], Tatsuya Kutsuno[1], Hiroto Handa[2], Toshihisa Kotake[1], Daisuke Takahashi[1] ([1]Grad. Sch. Sci. & Eng., Saitama Univ., [2]Dept. Biochem. & Mol. Biol., Fac. Sci., Saitama Univ.)

■ Cell cycle/Cell division

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-069 Characterization of toxic metal stress responses of Arabidopsis root tips using QuBAREY (quantitative PCR-based Arabidopsis root DNA-damage assay)
Shimpei Uraguchi, Risa Todoroki, Masakazu Sato, Yuka Ohshiro, Ryosuke Nakamura, Yasukazu Takanezawa, Masako Kiyono (Sch. Pharm., Kitasato Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-067 Mechanisms of endocycle induction by controlling histone methylation
Zhongkuan He, Akiko Masada, Kar Yee Moo, Yuki Iwata, Shiori S Aki, Masaaki Umeda (Graduate School of Science and Technology, Nara Institute of Science and Technology)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-068 Development of Arabidopsis transformants for chromosome live imaging of meiotic mutants
Yoshitaka Azumi (Fac. Science, Kanagawa Univ.)

■ Development/Morphogenesis

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-073 Experimental study on the effect of meristem size on floral transition
Shinji Watanabe, Takashi Okamoto, Atsuko Kinoshita (Tokyo Metropolitan Univ.)

PA-077 Sporophyte development and its meristem in hornworts
Kazune Ezaki, Keiko Sakakibara (College of Science, Rikkyo University)

PA-081 Functional analysis of IDD4, a novel transcription factor regulating root growth through sugar signaling in early developmental stage
Ryoichi Shiroma, Akiko Kozaki (Grad. Sch. Integ. Sci and Tech., Shizuoka Univ.)

PA-085 Role of vacuolar membrane fluidity in the development of vegetative tissue in the moss *Physcomitrium patens*

Mana Nakamura[1], Fuyumi Yamamoto[1], Ikumi Kajikawa[2], Yosuke Tamada[1,2,3,4] ([1]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ., [2]Sch. Eng., Utsunomiya Univ., [3]CORE, Utsunomiya Univ., [4]REAL, Utsunomiya Univ.)

PA-089 Analysis for phosphorylation dynamics of BIL7 that promotes plant growth in brassinosteroid signaling

Kaisei Nishida[1], Yusuke Nakamura[1], Tomoko Miyaji[2], Ayumi Yamagami[1], Akira Nozawa[3], Tatsuya Sawazaki[3], Takehiro Suzuki[2], Naoshi Doumae[2], Takuya Miyagawa[1], Minami Matsui[2], Syouzou Fujioka[2], Tadao Asami[4], Takeshi Nakano[1] ([1]Kyoto university · life science, [2]Riken · CSRS, [3]Ehime university · PROS, [4]Tokyo university · agriculture)

PA-093 The role of thermosensors in the transition of stem-cell fate in the moss *Physcomitrium patens*

Changxiu Yu[1,2], Nan Gu[3,4], Takumi Tomoi[3,5], Ikumi Kajikawa[3], Yukiko Kabeya[2], Mitsuyasu Hasebe[2,6], Yosuke Tamada[1,2,3,4,6,7] ([1]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ, [2]Div. Evol. Biol., Natl. Inst. Basic Biol, [3]Sch. Eng., Utsunomiya Univ, [4]REAL, Utsunomiya Univ, [5]Ctr. Innov. Spt., Utsunomiya Univ, [6]Sch. Life Sci., SOKENDAI, [7]CORE, Utsunomiya Univ)

PA-097 Investigation of callus and shoot induction condition for establish *Phtheirospermum japonicum* transformation method

Yusa Kashiwase[1], Mina Ohtsu[1,2], Satoko Yoshida[1] ([1]NAIST · Bioscience, [2]JST Sakigake)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-070 Analysis of the *Marchantia polymorpha adaxial-abaxial bipolar leaf* 2 mutant

Kaito Chiba[1], Rie Sato[1], Satoshi Naramoto[2], Nobuhiro Nagasawa[1], Namiko Satoh-Nagasawa[1] ([1]Fac. Biores. Sci., Akita Pref., [2]Faculty of Sciecne, Hokkaido U.)

PB-074 Exploration of the mechanisms of stem cell formation shared between plants and animals

Fuyumi Yamamoto[1], Ikumi Kajikawa[2], Takashi Aoi[3], Yousuke Tamada[1,2,4,5] ([1]Grad. Sch. Reg. Dev. Creat., Utsunomiya Univ., [2]Sch. Eng., Utsunomiya Univ., [3]Grad. Sch. Med., Kobe Univ., [4]CORE, Utsunomiya Univ., [5]REAL, Utsunomiya Univ.)

PB-078 SUR2 Fine-tunes Local Auxin Distribution for Lateral Root Formation in *Arabidopsis thaliana*

Chieko Goto[1], Akira Ikegami[1], Tatsuaki Goh[1,2], Hiroyuki Kasahara[3,4], Yuki Kondo[1], Kimitsune Ishizaki[1], Tetsuro Mimura[1,5,6], Hidehiro Fukaki[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Div. Biol. Sci., NAIST, [3]Grad. Sch. of Agri., Tokyo Univ. of Agri. and Tech., [4]RIKEN, CSRS, [5]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [6]Col. Biosci. Biotech., National Cheng Kung Univ.)

PB-082 KNOX and YABBY transcription factors shape nodes and internodes of the stem in rice

Katsutoshi Tsuda[1], Akiteru Maeno[1], Wakana Tanaka[2], Ken-ichi Nonomura[1] ([1]National Institute of Genetics, [2]Hiroshima University)

PB-086 Position of meristems and the angles of the cell division regulate lateral organ shape: a simulation perspective

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.)

PB-090 Analysis of vegetative reproduction in the hornwort *Anthoceros angustus*

Hidemasa Suzuki, Junko Kyozuka (Grad. Sch. Life Sci., Tohoku Univ.)

PB-094 Visualization of intracellular dynamics of Marchantia zygote to reveal the evolution of embryo axis formation in land plants

Sohta Nakamura[1], Yusuke Kimata[1], Yoshikatsu Sato[2], Minako Ueda[1] ([1]Grad. Sch. LifeSci., Tohoku Univ., [2]WPI-ITbM, Nagoya Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-071 Analysis of the functional relationship between AUXIN RESPONSE FACTOR and stem cell factor in the stem cell zone of *Marchantia polymorpha*

Yusei Imai[1], Emi Hainiwa[2], Aya Iwaki[1,2], Sakiko Ishida[2,3], 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, [3]Division of Biological Science, Nara Institute of Science and Technology)

PC-075 Investigation of gall-inducing factors from *Mesalcidodes trifidus*

Yuki Yamashita, Kanako Bessho-Uehara (Grad. Sch. Life Sci., Tohoku University)

PC-079 Relationship between growth suppression and chromosome polytenization in the root tip of high-polyploids of *Arabidopsis thaliana*

Suzuka Kikuchi[1], Takuya Sakamoto[2], Sachihiro Matsunaga[3], Munetaka Sugiyama[4], Akitoshi Iwamoto[1,5] ([1]Grad. Sch. Sci., Kanagawa Univ., [2]Fac. Sci. and Tech., Tokyo Univ. Sci., [3]Grad. Sch. Frontier Sci., Univ. Tokyo, [4]Dept. Sci., Grad. Sch. Sci., Univ. Tokyo, [5]Fac. Sci., Kanagawa Univ.)

PC-083 Submergence-induced Epidermal Cell Chloroplasts Differentiation in Rorippa Aquatica

Dwi Fajar Sidhiq[1], Shuka Ikematsu[2,3], Seisuke Kimura[2,3] ([1]Grad. Sch. Life Sci., Kyoto Sangyo Univ., [2]Fac. Life Sci., Kyoto Sangyo Univ., [3]Center for Plant Sci., Kyoto Sangyo Univ.)

PC-087 An approach to the molecular function of the *AYSYMMETRIC-LEAVES2* (*AS2*) gene involved in leaf formation using viral virulence gene *ßC1*

Takanori Suzuki[1,6], Hidekazu Iwakawa[2], Sayuri Ando[3], Shoko Kojima[3], Chiyoko Machida[3], Michiko Sasabe[4], Daisuke Kurihara[6], Tetsuya Higashiyama[5], Yasunori Machida[6] ([1]Iahihara Sangyo, Inst., [2]Grad. Sch. Sci., Kanazawa Univ., [3]Grad. Sch. Biosci. & Biotech., Chubu Univ., [4]Grad. Sch. Sci., Hirosaki Univ., [5]Grad. Sch. Sci., Univ. Tokyo, [6]Grad. Sch. Sci., Nagoya Univ.)

PC-088 Function of maintenance of DNA methylation by AS2 and nucleolar proteins involved in leaf development of *Arabidopsis thaliana*

Shoko Kojima[1], Hidekazu Iwakawa[2], Tetsunori Hibino[1], Hiro Takahashi[3], Sayuri Ando[1], Michiko Sasabe[4], Masaki Ito[2], Yasunori Machida[5], Chiyoko Machida[1] ([1]Grad. Sch. BioSci. Biotech., Chubu Univ., [2]Grad. Sch. Sci., Kanazawa Univ., [3]Grad. Sch. Medical Sci., Kanazawa Univ., [4]Grad. Sch. Agricul. & Life Sci. Hirosaki Univ., [5]Grad. Sch. Sci., Nagoya Univ.)

PC-091 The single MYB gene *GROM* is required for gemma cup formation of the liverwort *Marchantia polymorpha* as a direct target of GCAM1

Hirotaka Kato[1,2], Yukiko Yasui[1,3], Yuki Kondo[1], Hidehiro Fukaki[1], Tetsuro Mimura[1,4,5], Kimitsune Ishizaki[1] ([1]Grad. Sch. Sci., Kobe Univ., [2]Grad. Sch. Sci. Eng., Ehime Univ., [3]Grad. Sch. Biostudies, Kyoto Univ., [4]Grad. Sch. Agri. Life Sci., Univ. Tokyo, [5]Col. Biosci. Biotech., National Cheng Kung Univ.)

PC-095 GRAS Family Transcription Factor Is A New Regulator Of Asymmetric Cell Division And Polarity In Moss *Physcomitrium Patens*

Alisa Vyacheslavova[1], Ooi-Kock Teh[2], Renqi Wang[1], Mitsuyasu Hasebe[3], Tomomichi Fujita[4] ([1]Hokkaido University, Graduate School of Life Science, [2]Institute of plant and microbial biology, Academia Sinica, [3]National Institute for Basic Biology, Division of Evolutionary Biology, [4]Hokkaido University, School of Science)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-072 Toward understanding the molecular mechanisms of specific meristems in one-leaf plants *Monophyllaea* by whole-mount *in situ* hybridization

Shunji Nakamura, Ayaka Kinoshita, Hiroyuki Koga, Hirokazu Tsukaya (Grad. Sch. Sci., Univ. Tokyo)

PD-076 Establishment of a vascular cell induction system using *Ginkgo biloba* leaves

Keishi Yasui[1], Shunji Shimadzu[1,2], Aoi Narutaki[1], Shota Maeda[1], Kimitsune Ishizaki[1], Hidehiro Fukaki[1], Yuki Kondo[1] ([1]Grad. Sch. Sci., Kobe Univ, [2]Grad. Sch. Sci., Univ of Tokyo)

PD-080 Analysis of DNA damage response in a novel Arabidopsis mutant showing aberrant root and shoot development

Ryoko Muraoka, Akihito Mamiya, Yuki Kondo, Kimitsune Ishizaki, Hidehiro Fukaki (Grad. Sch. Sci., Kobe Univ.)

PD-084 Standing-up reaction of the pitchers in *Nepenthes alata* – gravitropic response and localization of amyloplasts –

Kaho Teramachi, Tsuyoshi Kaneta (Grad. Sch. Sci. & Eng., Ehime Univ.)

PD-092 A novel compound affects polarized cell expansion and cytoskeleton in *Physcomitrium patens*

Prerna Singh[1], Naoya Kadofusa[2], Ayato Sato[2], Satoshi Naramoto[3], Tomomichi Fujita[3] ([1]Graduate School of Life Science, Hokkaido University, [2]WPI-ITbM, Nagoya University, [3]Faculty of Science, Hokkaido University)

PD-096 Experimental Validation of a Possible Diversification Mechanism of Stomatal Development

Yuki Doll, Hiroyuki Koga, Hirokazu Tsukaya (Grad. Sch. Sci., Univ. Tokyo)

■ Reproduction

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-101 Functional analysis of jasmonic acid biosynthetic gene, *SlOPR3*, in tomato embryo development

Kaho Nakamura[1], Tomoko Niwa[2], Mayu Kajita[1], Kojiro Yokota[1], Shinobu Takada[3], Hironaka Tsukagoshi[4], Tsuyoshi Nakagawa[5], Sumie Ishiguro[1] ([1]Grad. Sch. Bio-Agr., Nagoya Univ., [2]Coll. Biosci. Biotech., Chubu Univ., [3]Grad. Sch. Science, Osaka Univ, [4]Facul. Agriculture, Meijo Univ., [5]Dep. Mol. Func. Genomics, Shimane Univ.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-098 Functional analysis of the H3K27me3 demethylase genes involved in sporophyte formation of the moss *Physcomitrium patens*

Yuya Kumagai[1], Ikumi Kajikawa[2], Yosuke Tamada[1,2,3,4] ([1]Grad. Sch. Reg. Dev. Creat., Univ. Utsunomiya, [2]Sch. Eng., Univ. Utsunomiya, [3]CORE., Univ. Utsunomiya, [4]REAL., Univ. Utsunomiya)

PB-102 Plasma membrane Ca^{2+}-ATPase is required for sperm flagellar motility in *Marchantia polymorpha*

Madoka Miyazaki[1], Naoki Minamino[2], Satoshi Hirao[3], Taisuke Togawa[1], Takashi Ueda[2,4], Katsuyuki T. Yamato[3] ([1]Grad. Sch. Biol. Sci. Technol., Kindai Univ., [2]Div. Cellular Dynamics, NIBB, [3]Fac. Biol. Sci. Technol., Kindai Univ., [4]Sch. Life Sci., SOKENDAI)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-099 Reliance of endosperm gene expression on *Arabidopsis* embryonic development

Yilin Zhang[1], Daisuke Maruyama[2], Erika Toda[3,6], Atsuko Kinoshita[3], Takashi Okamoto[3], Nobutaka Mitsuda[4], Hironori Takasaki[1], Masaru Ohme-Takagi[1,5] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]KIBR., Yokohama City Univ., [3]Dept. Biol. Sci., Tokyo Metropolitan Univ., [4]BPRI., AIST., [5]Inst. Trop. Plant Biol. Microbiol., Natl. Cheng Kung Univ., [6]Dept. Biol. Sci., Tokyo Univ.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-100 Comparison of gene expression between double and single fertilized seeds in *Arabidopsis thaliana*

Hironori Takasaki[1], Yilin Zhang[1], Atsuko Kinoshita[2], Takashi Okamoto[2], Masaru Ohme-Takagi[1,3] ([1]Grad. Sch. Sci. Eng., Saitama Univ., [2]Dept. Biol. Sci., Tokyo Metropolitan Univ., [3]Inst. Trop. Plant Biol. Microbiol., Natl. Cheng Kung Univ.)

■ Plant hormones/Signaling molecules

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-109 Functional analysis of KL signaling in *Ceratopteris Richardii*, a model fern species

Ayano Fujimura[1], Yuki Hata[3], Xiaonan Xie[2], Junko Kyozuka[3] ([1]Fac. Sci., Univ. Tohoku, [2]Univ. Utsunomiya, [3]Grad. Sch. Life Sci., Univ. Tohoku)

PA-113 Chemical and physiological analyses in the Arabidopsis mutant for key enzyme genes in abscisic acid biosynthesis

Minami Nakano[1], Naoto Kawakami[2], Masanori Okamoto[1,3] ([1]Utsunomiya Univ., [2]Meiji Univ., [3]Riken)

PA-117 Interaction between MAPK cascade and abscisic acid in thermoinhibition of Arabidopsis seed germination

Masahiko Otani[1], Ryo Tojo[1], Kohei Yokota[2], Kazuya Ichimura[2], Naoto Kawakami[1] ([1]Grad. Sch. Agri., Univ. Meiji, [2]Fac. Agri., Univ. Kagawa)

PA-121 Screening of small molecules for the designing of INO1 antagonist toward improving mineral bioavailability in rice

Tatsuki Akabane[1], Naoki Hirotsu[1], Satoshi Kamino[2], Etsuko Katoh[3] ([1]Grad. Sch. Life Sci., Toyo Univ., [2]CRYO SHIP Inc., [3]Dept. Food Nutr. Sci., Toyo Univ.)

PA-125 The *trans*-hydroxylation of cytokinin by *CYP735A3* and *CYP735A4* controls growth and development in rice

Takatoshi Kiba[1], Kahori Mizutani[1], Aimi Nakahara[1], Yumiko Takebayashi[2], Mikiko Kojima[2], Tokunori Hobo[3], Yuriko Osakabe[4], Keishi Osakabe[5], Hitoshi Sakakibara[1] ([1]Grad. Sch. Bioagr. Sci., Nagoya Univ., [2]RIKEN CSRS, [3]Biosci. Biotech. Center, Nagoya Univ., [4]Dep. Life Sci. & Tech., Tokyo Tech., [5]Fac. Biosci. Bioindust., Tokushima Univ.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-110 Regulation of Strigolactone Production under Nutrient-Poor Conditions in *Marchantia paleacea*

Akiyoshi Yoda[1], Kyoichi Kodama[1], Takahito Nomura[2], Junko Kyozuka[1] ([1]Grad. Sch. of Life Sci., Tohoku Univ., [2]Ctr. for Biosci. Res. & Educ., Utsunomiya Univ.)

PB-114 Elucidation of structures and biosynthetic pathways of cytokinin-like compounds produced by leafy gall forming phytopathogens

Kazuki Miyata[1], Mika Yoshino[1], Alicia Surjana[1], Mikiko Kojima[2], Kensuke Kouki[1], Toshio Nishikawa[1], Hitoshi Sakakibara[1,2] ([1]Grad. Sch. Bio. Sci., Nagoya Univ., [2]RIKEN CSRS)

PB-118 Glutamate activates salicylic acid signaling to promote stomatal closure and *PR1* expression in Arabidopsis

Riichiro Yoshida, Toshihiko Tsuruda (Fac. Agri., Kagoshima Univ.)

PB-122 Analysis of candidate of IBA metabolism inhibitor, SAK1035

Fuya Kato, Nao Shimizu, Rie Kikuchi, Akiko Sato, Ayako Nakamura, Yukihisa Shimada (KIBR, Yokohama City Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-111 Distribution of Cytokinin in Stem Cells in *Phiscomitrium patens*

Juri Ohtsuka, Yuki Hata, Yi Luo, Junko Kyozuka (Grad. Sch. Life Sci., Univ. Tohoku)

PC-115 Isolation Of Arabidopsis Mutants With Altered Sensitivity To Thermospermine

Mituru Saraumi, Takahiro Tanaka, Hiroyasu Motose, Taku Takahashi (Faculty of Science, Okayama Univ.)

PC-119 Evolutionary analysis of gibberellin reception with protein structure prediction by AlphaFold2

Hideki Yoshida[1], Shunsuke Nishio[1], Hidekazu Takahashi[2], Makoto Matsuoka[1] ([1]IFeS, Fukushima Univ., [2]Fac. of Food and Agric. Sci., Fukushima Univ.)

PC-123 Transcriptomic analyses on the mode of action of a novel compound that induce the accumulation of both jasmonic acid and salicylic acid in Arabidopsis

Haruka Kajiro[1], Kentaro Namiki[1], Ryuhei Toya[1], Mizuki Ogawa[1], Sota Ogawa[1], Nobutaka Kitahata[1,2], Yuho Saito[1], Masataka Nakano[1], Taiki Funahashi[1], Kenji Hashimoto[1], Kouji Kuramochi[1], Tadao Asami[2], Hiroshi Abe[3], Fuminori Takahashi[3,4], Seisuke Kimura[5], Kazuyuki Kuchitsu[1] ([1]Dept. Appl. Biol. Sci., Tokyo Univ. of Science, [2]Univ. of Tokyo, [3]RIKEN, [4]Dept Biol. Sci. & Tech., Tokyo Univ. of Science, [5]Kyoto Sangyo Univ.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-112 Exploration of Transcription Factors Related to Auxin-inducible Gene Expressions Based on Cis-regulatory Motif Analysis in *Klebsormidium nitens*

Noriaki Tounosu, Kanami Sesoko, Koichi Hori, Mie Shimojima, Hiroyuki Ohta (Schooll of Life Science and Technology, Tokyo Institute of Technology)

PD-116 Functional Analysis of ABI3-like Transcriptional Regulators in the Drought Response of the Streptophyte Alga *Klebsormidium nitens*

Takeru Miki, Koichi Hori, Noriaki Tounosu, Mie Shimojima, Hiroyuki Ohta (Sch. Life Sci. and Tech., Tokyo Tech)

PD-120 Genetic analysis of *β*-carotene isomerase genes in Arabidopsis

Hitomi Kobuna[1], Daisuke Fukuhara[1], Yoshiya Seto[2], Tetsuo Kushiro[2], Masanori Okamoto[1,3] ([1]Utsunomiya Univ., [2]Meiji Univ., [3]CSRS., Riken)

PD-124 Development of Boron-Containing Small Molecules Enabling to Promote Plant Growth

Yuma Shisaka, Shuhei Kusano, Sakuya Nakamura, Masanori Izumi, Shinya Hagihara (RIKEN CSRS)

■ Photoreceptors/Photoresponses

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-105 Functional Analysis of a Novel Cryptochrome Interactiong Factor CIF5

Ayano Yasuda, Takeshi Kanegae (Grad. Sch. Sci, Tokyo Metropolitan Univ.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-106 The MYB transcription factor interacting with the UV-B receptor, UVR8, in *Marchantia polymorpha*

Youichi Kondou, Hyuga Haraguchi, Seigi Ooki, Satoshi Higeta (Kanto Gakuin University College of Science and Engineering)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-103 Light mediates transcription start sites of *heme oxygenase 1* for a cytoplasmic heme decomposition bypass in *Arabidopsis*

Yingxi Chen[1], Kohji Nishimura[2], Yoshiharu Y. Yamamoto[3], Yoshito Oka[4], Tomonao Matsushita[4], Takayuki Shimizu[1], Tatsuru Masuda[1] ([1]Grad. Sch. Arts Sci., Univ. Tokyo, [2]Fac. Life Envi. Sci., Univ. Shimane, [3]U. Grad. Sch. Agr., Univ. Gifu, [4]Grad. Sch. Sci., Univ. Kyoto)

PC-107 CO_2-induced rapid dephosphorylation of guard-cell plasma membrane H^+-ATPase underlies stomatal closure

Eigo Ando[1], Hannes Kollist[2], Kohei Fukatsu[3], Toshinori Kinoshita[3,4], Ichiro Terashima[1] ([1]Dep. Biol. Sci., Sch. Sci., Univ. Tokyo, [2]Inst. Tech., Univ. Tartu, [3]Div. Biol. Sci., Grad. Sch. Sci., Nagoya Univ., [4]WPI-ITbM, Nagoya Univ.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-104 Characterization of blue light-induced leaf movements in soy bean

Yusuke Kubo[1], Rie Mishima[1], Toshinori Kinoshita[2], Shin-ichiro Inoue[1] ([1]Nagoya Univ. Grad. Sch. Sci., [2]Nagoya Univ. ITbM)

PD-108 Light dependent granule formation of PHOTOSYNTHESIS-RELATED RAF kinase in *Marchantia polymorpha*

Nodoka Handa[1], Asuka Shintaku[2], Eri Koide[2], Megumi Iwano[2], 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)

■ Flowering/Clock

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-129 Relationship between cyclic di-GMP and cyanobacterial circadian clock

Chihiro Yamaguchi[1], Robert Kanaly[1], Eri Nisizaki[1], Kei-ichi Yamashita[1], Yamato Sasho[1], Mei Harada[1], Momoe Hirai[1], Masaki Tsukamoto[2], Setsuyuki Aoki[2], Yoichi Nakahira[3], Yoshihiko Huruike[4], Shuji Akiyama[4], Mingxu Fang[5], Susan Golden[5], Shinsuke Kutsuna[1] ([1]Grad. Sch. Sci., Univ. Yokohama City, [2]Grad. Sch. Info., Univ. Nagoya, [3]Col. Agric., Univ. Ibaraki, [4]Research Center of Integrative Molecular Systems (CIMoS), Institute for Molecular Science, [5]Univ. California, San Diego)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-126 Flowering-inducing small protein is expressed in the *FT* expressing cells

Hiroshi Takagi, Takato Imaizumi (Nagoya University, Center for Gene Research)

PB-130 Newly suggested relationship between N-terminal methionine excision and response to light

Kazuki Oda[1], Shiori Muraoka[1], Takamasa Suzuki[2], Muneo Sato[3], Masami Yokota Hirai[3,4], Hitoshi Onouchi[1], Satoshi Naito[1], Yui Yamashita[1] ([1]Grad. Schl. Agr., Hokkaido Univ., [2]College of Bioscience and Biotechnology, Chubu Univ., [3]RIKEN CSRS, [4]Grad. Schl. Bioagric. Sci., Nagoya Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-127 Function of the nuclear speckle of florigen activation complex

Ken-ichiro Taoka[1,2], Mari Tanaka[1], Keiji Nishida[2], Akihiko Kondo[2], Chojiro Kojima[3,4], Hiroyuki Tsuji[1,5] ([1]KIBR, YCU, [2]EGBRC, Kobe Univ., [3]Inst. Prot. Res., Osaka Univ., [4]Grad. Sch. Eng. Sci., YNU, [5]BBC, Nagoya Univ.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-128 Annual trascriptome analysis of transgenic Japanese cedar over-expressing clock gene *CjGI*

Mine Nose[1], Ken-ichi Konagaya[2], Manabu Kurita[1] ([1]Forest Tree Breed. Ctr., FFPRI, [2]Forest Bio-Res. Ctr., FFPRI)

■ Environmental response A/Physiological responses

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-133 Identification of *MYB52* Gene That is Involved in Differences of Root Hydrotropism Through Regulate the Mechanical Strength of Roots in Arabidopsis Ecotypes by GWAS

Boyuan Mao[1], Kouichi Soga[2], Hiroki Takahashi[1], Hideyuki Takahashi[1], Nobuharu Fujii[1] ([1]Grad. Sch., Univ. Tohoku, [2]Grad. Sch. Sci., Univ. Osaka metropolitan)

PA-137 Roles of the Protein Kinase, TAG Accumulation Regulator 1, in the Nitrogen-Deficient Responses of the Green Alga *Chlamydomonas reinhardtii*

Takumi Ishikawa[1], Yoshinori Tsuji[1], Akari Kinoshita[1], Haruka Shinkawa[1,2], Takashi Yamano[1], Hideya Fukuzawa[1] ([1]Grad. Sch. Biostudies., Kyoto Univ., [2]Res. Inst. Biores. Biotech., Ishikawa Pref. Univ.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-134 Auxin response negatively regulates root hydrotropism via a pathway apart from that of MIZ1/MIZ2

Kotaro Akita[1], Yutaka Miyazawa[2] ([1]Grad. Sch. Sci & Eng., Yamagata Univ, [2]Fac. Sci., Yamagata Univ)

PB-138 Effect of metacaspase on dark-induced senescence of Arabidopsis leaves

Hiroshi Hayashi, Hiroko Kato, Shiori Shiobara (Dept. Biosc. and Biotech., Fukui Pref. Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-131 Effect of light on nutritropism in rice roots

Md Nashir Uddin[1,2], Kiyoshi Yamazaki[1], Yoshihiro Ohmori[1], Toru Fujiwara[1] ([1]Grad. Sch. Agri. & Life Sci., Tokyo Univ. Yayoi, Bunkyo, Tokyo 113-8657, Japan, [2]Sch. Health and Life Sci., North South Univ., Dhaka, Bangladesh)

PC-135 Involvement of ROS in Sr inductive growth inhibition in *Arabidopsis thaliana*

Takeshi Nagata, Masaki Arai, Toshiya Nakamura (Setsunan Univ.)

PC-139 Histone H3 Lysine 4 Trimethylation is Activated by Light Illumination in the Unicellular Red Alga *Cyanidioschyzon merolae*

Anasthasia Devithania Nelce[1,2], Xie Weiqi[1,2], Anais Lacroix[1,2], Yuki Kobayashi[2], Kan Tanaka[2] ([1]School of Life Science and Technology, Tokyo Institute of Technology, [2]Laboratory for Chemistry and Life Science, Institute of Innovative Research, Tokyo Institute of Technology)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-132 Global impact of PM H^+-ATPase activation on gene expression in *Arabidopsis* seedling

Satoru N. Kinoshita[1], Kyomi Taki[1], Mayuko Naganawa[1], Riko Hasegawa[1], Hironaru Kiriyama[2], Junko Ohkanda[2], Toshinori Kinoshita[1,3] ([1]Grad. Sch. of Science, Nagoya Univ., [2]Institute of Agriculture, Shinshu Univ., [3]WPI-ITbM, Nagoya Univ.)

PD-136 Transcriptome and Co-expression analyses identify gene network regulating N-deficiency responses in *Oryza rufipogo*n x Koshihikari introgression line

Bright Adu, Yoshihiro Ohmori, Toru Fujiwara (Lab of Plant Nutrition, Grad Sch of Agric. Life Sciences, Univ. Tokyo)

PD-140 Effects of Simulated Microgravity on Cell Division and Thallus Formation in *Coleochaete scutata*

Mayuka Naruse[1], Ichiro Karahara[2], Daisuke Tamaoki[2] ([1]Grad. Sci. Eng., Univ. Toyama, [2]Fac. Sci., Acad. Assemb., Univ. Toyama)

■ Environmental response B/Environmental stresses

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-141 Transcriptome analysis of a halotolerant cyanobacterium: Relationship between environmental salt concentration and circadian clock

Rungaroon Waditee-Sirisattha[1], Hiroshi Ito[2], Takashi Hibino[3,4], Hakuto Kageyama[3,4] ([1]Fac. Sci., Chulalongkorn Univ, [2]Fac. Des., Kyusyu Univ., [3]Grad. Sch. Environ. Hum. Sci., Meijo Univ., [4]Fac. Sci. Tech., Meijo Univ.)

PA-145 Functional analysis of SAL1-PAP pathway in environmental stress responses of tomato

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

PA-149 Effects of ROS production on plant grafting

Kentaro Okada[1], Lalita Jantean[2], Ken-ichi Kurotani[1], Michitaka Notaguchi[1,2] ([1]Bioscience and Biotechnology Center, Nagoya University, [2]Graduate School of Bioagricultural Sciences, Nagoya University)

PA-153 The Effect Of Plant Intracellular Flavin Levels On Environmental Stress Responses

Takamasa Sugii[1], Miho Harada[1], Takanori Maruta[1], Takahiro Ishikawa[1], Kazuya Yoshimura[2], Shigeru Shigeoka[3], Takahisa Ogawa[1] ([1]Grad. Sch. Nat. Sci. Technol., Shimane Univ., [2]Dept. Food Nutr. Sci., Coll. Biosci. Biotech., Chubu Univ., [3]Exp. Farm, Kindai Univ.)

PA-157 Role of Phosphorylation of Activation Loop in Arabidopsis B3-RAF kinase for SnRK2 Activation

Koki Nakayama[1], Naoya Kohara[1], Daisuke Takezawa[2], Izumi Yotsui[1], Teruaki Taji[1], Yoichi Sakata[1] ([1]Dept. of Biosci., Tokyo Univ. of Agri., [2]Grad. Sch. Sci and Eng., Saitama Univ.)

PA-161 Functional Analyses of Arabidopsis bZIP Transcription Factor Involved in Drought Tolerance

Yoshimi Nakano, Keiko Kigoshi, Sumire Fujiwara (National Institute of Advanced Industrial Science and Technology (AIST))

PA-165 Fast Environmental adaptation through mutation stacking and its application

Natsuno Morisaki[1], Marcel Pascal Beier[2], Tomomichi Fujita[3] ([1]Grad. Sch. Life sci., Hokkaido Univ., [2]IAHE, Fac. Sci., Hokkaido Univ., [3]Fac. Sci., Hokkaido Univ.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-142 Differential effects of excessive mM-order-levels of alkaline-metal ions (Na^+, Li^+, Cs^+) on growth patterns of 6 plant seedlings cultivated under the same soil and medium conditions

Masahiro Inoue[1], Yui Katsuta[1], Hirotaka Kato[2], Yoh Sakuma[2], Dharmendra K. Gupta[3] ([1]Dept. Biol. Faculty Sci., Ehime Univ., [2]Grad. Sch. Sci. & Eng., Ehime Univ., [3]Min. Environ. Forest Clim. Change (Ind))

PB-146 What is wounding stress? Relationship between regeneration and pattern recognition receptors in Arabidopsis

Yosuke Sasai[1,2], Akira Iwase[2,3], Keiko Sugimoto[1,2] ([1]Univ. Tokyo, Dep. Biol. Sci., [2]RIKEN, CSRS, [3]PRESTO)

PB-150 DnaK2 mediates a negative feedback regulation of the heat shock and redox stress-responsive Hik2-Rre1 two-component system in the cyanobacterium *Synechococcus elongatus* PCC 7942

Hazuki Hasegawa[1,3], Nachiketa Bairagi[1], Ikki Kobayashi[1], Satoru Watanabe[2], Kan Tanaka[1] ([1]CLS, Tokyo Tech, [2]Dep. Bio, TUA, [3]LST, Tokyo Tech)

PB-154 The time-series transcriptome analysis reveals the variation of gene expression of leaf and root in drought response of two *Brachypodium distachyon* ecotypes

Anzu Minami[1,2], Minami Shimizu[1,2], Asaka Kanatani[1], Keiichi Mochida[1,2,3] ([1]RIKEN Center for Sustainable Resource Science, [2]Kihara Institute for Biological Research, Yokohama City University, [3]School of Information and Data Sciences, Nagasaki University)

PB-158 Analysis of signal transduction pathways mediated by group C Raf-like kinases in *Arabidopsis*

Hinano Takase[1], Yoshiaki Kamiyama[2], Kota Yamashita[2], Saashia Fuji[4], Hodaka Sugimoto[3], Koji Takahashi[3], Atsushi Takemiya[4], Toshinori Kinoshita[3], Taishi Umezawa[2] ([1]Tokyo Univ. Agric. Tech., [2]Tokyo Univ. Agric. Tech., [3]Nagoya Univ., [4]Yamaguchi Univ.)

PB-162 1-butanol treatment induces drought stress tolerance in *Arabidopsis thaliana*

Quynh Do[1,4], Daisuke Todaka[1], Maho Tanaka[1,2], Satoshi Takahashi[1,2], Junko Ishida[1,2], Xuan Hoi Pham[4], Motoaki Seki[1,2,3] ([1]Plant Genomic Network Research Team, RIKEN CSRS, [2]Plant Epigenome Regulation Laboratory, RIKEN CPR, [3]Kihara Institute for Biological Research, Yokohama City University, [4]Agricultural Genetics Institute, Vietnam Academy of Agricultural Sciences)

PB-166 An Establishment of Novel Technique for cpDNA Specific DSBs Induction

Aine Kawashima, Toshiharu Shikanai, Yoshiki Nishimura (Grad. Sci., Kyoto Univ.)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-143 Functional analysis of a gene which is responsive to long-term cold during winter

Hanako Shimizu, Akari Shibata, Hiroshi Kudoh (CER, Kyoto Univ.)

PC-147 Functional characterization of Slr2103 protein in the synthesis of a novel neutral lipid in *Synechocystis*

Mimari Kondo, Motohide Aoki, Kazuho Hirai, Taku Sagami, Ryo Ito, Mikio Tsuzuki, Norihiro Sato (Grad. Sch. Sci., Univ. Toyaku)

PC-151 Comparative Analysis of Regulatory Functions of ABA Responses in Land Plant Ethylene Receptor-Type Histidine Kinases

Taketo Sasaki, Tsukasa Toriyama, Izumi Yotsui, Teruaki Taji, Yoichi Sakata (Dept. of Biosci., Tokyo Univ. of Agri.)

PC-155 Functional analysis of the DREB2 pathway in the regulation of heat stress response in rice

Jiajun Mo (Grad. Sch. Agr. Life Sci., Univ. Tokyo)

PC-159 Phytocyanin-encoding Genes Confer Enhanced Ozone Tolerance In *Arabidopsis thaliana*

Shoko Saji[1], Hikaru Saji[1], Kimiyo Sage-Ono[2], Michiyuki Ono[2], Nobuyoshi Nakajima[1], Mitsuko Aono[1] ([1]Biodiversity Div., Natl. Inst. Environ. Studies, [2]Grad. Sch. Life & Environ. Sci., Univ. Tsukuba)

PC-163 Comprehensive analysis of a nitrate-independent function of the Arabidopsis nitrate transceptor NRT1.1/NPF6.3

Takushi Hachiya[1], Tsuyoshi Nakagawa[1], Hitoshi Sakakibara[2] ([1]Int. Cent. Sci. Res., Shimane Unv., [2]Grad. Sch. Bioagr. Sci., Nagoya Univ.)

PC-167 Functional analysis of Sll1951 involved in biofilm formation in the cyanobacterium *Synechocystis* sp. PCC6803

Masane Tsuruta[1], Koh-ichi Takahashi[1], Ishikawa Haruna[2], Yuki Ide[3], Junji Uchiyama[1,4], Hisataka Ohta[1,4] ([1]Dept. of Math. and Sci. Edu., Grad. Sch. of Sci., Tokyo Univ. of Sci., [2]Dept. of Math. and Sci. Edu., Grad. Sch. of Math. and Sci. Edu., Tokyo Univ. of Sci., [3]Dept. of Phy., Grad. Sch. of Sci., Tokyo Univ. of Sci., [4]Inst. Arts and Sci., Tokyo Univ. of Sci.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-144 SphS senses the acid stress and regulate the cell enlargement mechanisms involving DivK in *Synechocystis* sp. PCC6803

Airi Nakamura, Yoshikazu Saitou, Hidetaka Kohga, Ryoukuke Asakura, Junji Uchiyama, Hisataka Ohta (Grad. Sch. Sci., Tokyo Uni. of Science)

PD-148 Toxin-antitoxin in the cyanobacterium *Synechocystis* sp. PCC6803 Role of *ssr1765*, which is involved in the system, in acidic stress in the cyanobacterium Synechocystis sp

Marina Miyata (Grad. Sci, Univ. TUS)

PD-152 *Physcomitrium patens* respond to the magnitude of the gravitational force with varying the amount of growth

Shintaro Aoki[1], Yuki Yamashita[1], Yuko T. Hanba[2], Hiroyuki Kamachi[3], Ichiro Karahara[3], Atsushi Kume[4], Tomomichi Fujita[5] ([1]Grad. Sch. Life Sci., Hokkaido Univ., [2]Apld. Bio., Kyoto Inst Tech., [3]Sch. sci., Toyama Univ., [4]Grad. Sch., Biorsc Bioenv Sci., Kyusyu Univ., [5]Fac. Sci., Hokkaido Univ.)

PD-156 Long-Distance Transport and Functions of MicroRNAs in Poplar Dormancy

Moritaro Matsuzawa, Shinya Hirooka, Kimiyo Ono, Jun Furukawa, Michiyuki Ono, Shinobu Satoh (Grad. Life Env. Sci., Univ. Tsukuba)

PD-160 AtTRB3 is involved in the salt stress tolerance by ethanol

Kouta Urushihara[1], Hiroki Ishihara[1], Akihiro Matsui[2], Maho Tanaka[2], Sumire Fujiwara[3], Nobutaka Mitsuda[3], Masaru Takagi[3], Kyoko Mogami[4], Atsushi J. Nagano[4,5], Masahiro Tamoi[1], Motoaki Seki[2], 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.)

PD-164 Analysis of the transcription factor SGR5 that functions in the drought resistance mechanism

Moeca Arai[1,2], Keiko Kigoshi[1], Maki Kawai[1,2], Yoshimi Nakano[1], Nobutaka Mitsuda[1], Sumire Fujiwara[1,2] ([1]Bioprod. Res. Inst., AIST, [2]Grad. Biol. Sci., Univ. Tsukuba)

PD-168 Discovery of a novel mutation conferring herbicide resistance in a weed

Tomomi Kubo[1], Masaki Endo[2], Ayako Nishizawa-Yokoi[2], Rintaro Suzuki[3], Akira Uchino[4], Satoshi Iwakami[1] ([1]Grad. Sch. Agr., Univ. Kyoto, [2]Institute of Agrobiological Sciences, NARO, [3]Research Center for Advanced Analysis, NARO, [4]Central Region Agricultural Research Center, NARO)

■ Plant-organism interaction A

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-169 Identifying transcription factors necessary for the development of root parasitism structures in the parasitic plant *Phtheirospermum japonicum*

Yuki Tanaka[1,2], Takanori Wakatake[3], Ken Shirasu[1,2] ([1]Grad. Sch. Sci., Univ. Tokyo, [2]RIKEN CSRS, [3]Research Center of Genetic Resources, NARO)

PA-173 Brown planthopper harbors an abundance of microbes for utilization as innovative source of plant defense elicitors

David Wari, Yuko Hojo, Akio Tani, Tomonori Shinya, Ivan Galis (Inst. Plant Sci. & Res., Okayama Univ.)

PA-177 Proteomic analysis of flagellin recognition signaling in rice

Yuya Katsuragi[1], Koki Wataya[2], Hanamichi Katagiri[1], Fang-Sik Che[1,2,3] ([1]Nagahama Inst. of Bio-Sci. and Tech., [2]Grad. Sch. of Biosci. Nagahama Inst. of Bio-Sci. and Tech., [3]Genome Editing Res. Inst., Nagahama Inst. of Bio-Sci. and Tech.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-170 Mechanism of plant-bacteria interaction studied by onion and bacterial genus *Burkholderia*

Shouta Nonoyama, Shinji Masuda (Dep. Life Sci. Technol., Tokyo Tech.)

PB-174 Rapid silicon distribution and defense in rice exposed to herbivory stress

Dandy Ahamefula Osibe[1,2], Yuko Hojo[1], Tomonori Shinya[1], Ivan Galis[1] ([1]Inst. Plant Sci. & Res., Okayama Univ., [2]Dept. Plant Sci. & Biotech., Univ. Nigeria Nsukka Nigeria)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-171 Root infection competition behaviors between plant-parasitic nematodes and rhizobia

Mai Jinkawa[1], Yi-Lun Tsai[1,2], Masayoshi Kawaguchi[3], Shinichiro Sawa[1,2] ([1]Fac. Adv. Sci. & Tech., Kumamoto Univ., [2]IRCAEB, Kumamoto Univ., [3]Div. Symbiotic Systems, NIBB)

PC-175 Effects of *Fusarium graminearum* Inoculation on Metabolite Production and Protein Expression in *Arabidopsis* Leaf Epidermis

Kyoka Kato[1], Takumi Nishiuchi[2], Ichiro Karahara[3], Daisuke Tamaoki[3] ([1]Grad. Sci. Eng., Univ. Toyama, [2]Bio. Cor. Fac., Univ. Kanazawa, [3]Fac. Sci., Acad. Assemb., Univ. Toyama)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-172 Effects of a mutation in fatty acid synthase KAS-II on the resistance to rice bacterial blight

Ryota Okamoto[1], Yuuki Gatayama[2], Tomoaki Muranaka[3], Satoru Taura[4], Katsuyuki Ichitani[3], Toshiki Uchiumi[1] ([1]Grad. Sch. Sci. Eng., Kagoshima Univ., [2]Grad. Sch. Agri. Forest. Fish., Kagoshima Univ., [3]Fac. Agri., Kagoshima Univ., [4]Cent. Adv. Sci. Res. Pro., Kagoshima Univ.)

PD-176 Understanding of the molecular mechanisms of rice immunity mediated by a nuclear-localized NLR Xa1

Ayaka Yoshihisa[1], Sayaka Sato[1], Satomi Yoshimura[1], Motoki Shimizu[2], Koji Yamaguchi[1], Tsutomu Kawasaki[1] ([1]Grad. Sch. Agr., Univ. Kindai, [2]Iwate. Biotech. Res. Cen)

PD-180 Defense signal sensitization under phosphate deficiency following perception of damage-associated Pep peptides in *Arabidopsis thaliana*

Natsuki Tsuchida, Tae Hong Li, Kentaro Okada, Kei Hiruma, Taiga Ishihara, Shigetaka Yasuda, Yusuke Saijo (NAIST)

■ Plant-organism interaction B

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-181 Functional analysis of *cis-trans* isomerase Cyclophilin in rhizobial infection

Takashi Goto[1,2], Masayoshi Kawaguchi[1,2] ([1]National Institute for Basic Biology, [2]The Graduate University for Advanced Studies)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-178 Function of class 1 phytoglobins in the leaves of *Lotus japonicus*

Toshiki Uchiumi[1], Yuta Shimokawa[1], Mitsutaka Fukudome[2] ([1]Dept. Sci., Kagoshima Univ., [2]Fac. Agri., Kagawa Univ.)

PB-179 Role of cystathionine γ-lyase of *Mesorhizobium loti* in root nodule symbiosis

Mitsutaka Fukudome[1], Yuta Shimokawa[2], Toshiki Uchiumi[2], Masayoshi Kawaguchi[3] ([1]Fac. of Agri. Kagawa Univ., [2]Grad. Sch. Of Sci. and Eng. Kagoshima Univ., [3]NIBB)

PB-182 Relationship between the plant cell wall and the symbiotic microbes in the infection process, focusing on *COBRA* genes in *Lotus japonicus*

Daniela Romero Montero, Mayu Kawasaki, Akira Akamatsu, Naoya Takeda (Kwansei Gakuin University)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-183 Genome wide association studies in rice to improve nitrogen fixation capacity in paddy fields

Hikaru Asano[1,2], Zhihang Feng[2], Yoshihiro Ohmori[2], Yoko Masuda[2,3], Hirotomo Ohba[4], Keishi Senoo[2,3], Toru Fujiwara[2] ([1]Tokyo Col. Biotech., [2]Grad. Sch. Agr. Life Sci., Univ. Tokyo, [3]CRIIM, Univ. Tokyo, [4]Niigata Agr. Res. Inst.)

■ Genome function/gene regulation

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-185 Transition of distribution patterns of histone H2A.Z in the evolution of *Arabidopsis thaliana*

Soichirou Satoh[1,2], Kazuki Mukae[1], Shoma Morita[2], Haruno Narukawa[2], Kohei Kawaguchi[1], Takayuki Hata[3], Junichi Obokata[4] ([1]Grad. Sch. Life Env. Sci., Kyoto Pref. Univ., [2]Fac. Life Env. Sci., Kyoto Pref. Univ., [3]Grad. Sch. Med., Hirosaki Univ., [4]Fac. Agri., Setsunan Univ.)

PA-189 Origins and convergent evolutions in fruit ripening pathways of angiosperm

Eriko Kuwada[1], Takashi Akagi[1,2] ([1]Grad. Sch. Environ & Life Sci., Univ. Okayama, [2]JST-PRESTO)

PA-193 Explainable deep learning predicts small RNAs enrichment patterns across wide plant varieties

Natsumi Enoki[1], Naoko Fujita[1], Seiichi Uchida[2], Takashi Akagi[1] ([1]Grad. Sch. Environ & Life Sci., Univ. Okayama, [2]Dept. Adv. Info. Tech., Univ. Kyusyu)

PA-197 The effect of flavonoids on dsRNA-cleaving activities of Dicer-like proteins

Midori Tabara[1], Riho Yamanashi[2], Atsushi Takeda[3], Toshiyuki Fukuhara[2] ([1]R-GIRO, Ritsumeikan Univ., [2]Grad. Agri., Tokyo Univ. Agri. Tech., [3]Grad. Life Sci., Ritsumeikan Univ.)

PA-201 Analysis of activation mechanism of *Physcomitrella Patens* S6 kinase (S6K)

Tatsuki Abe[1], Kaito Yuki[2], Akiko Kozaki[1,2] ([1]Grad. Sch. Integ. Sci and Tech., Univ. Shizuoka, [2]Fac. Sci., Univ. Shizuoka)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-186 Development of *de novo* DNA Methylation Editing Technology in *Arabidopsis thaliana*

Shunya Hirata[1], Yuna Okawa[2], Yoko Ikeda[3], Taisuke Nishimura[4], Kappei Kobayashi[1,2], Hidetaka Kaya[1,2] ([1]Graduate School of Agriculture, Ehime University, [2]Faculty of Agriculture, Ehime University, [3]IPSR, Okayama University, [4]Department of Bioengineering, Nagaoka University of Technology)

PB-190 Observation of transcription active region in RNA polymerase II C-terminal domain modification enzyme induced cells

Mio Shibuta K. (Fac. Sci., Yamagata Univ.)

PB-194 Arabidopsis *TTL* gene is involved in the splicing of AT–AC-type introns

Tomoko Niwa[1], Junshin Miyamoto[2], Daisuke Kurihara[3,4], Takamasa Suzuki[1] ([1]Col. Biosci. Biotech., Chubu Univ., [2]Grad. Sch. Biosci. Biotech., Chubu Univ., [3]ITbM, Nagoya Univ., [4]Inst. Adv. Res., Nagoya Univ.)

PB-198 The molecular-based mechanism for activation of the CRR4-DYW1 RNA editing complex

Tenghua Wang, Mizuki Takenaka (Kyoto university)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-187 Co-localization of histone H4K16ac and H2A.Z around DSB loci in *Arabidopsis thaliana*

Kohei Kawaguchi[1], Mei Kazama[1], Takayuki Hata[2], Mitsuhiro Matsuo[3], Junichi Obokata[3], Soichirou Satoh[1] ([1]Grad. Sch. Life Env. Sci., Kyoto Pref. Univ., [2]Grad. Sch. Med., Hirosaki Univ., [3]Fac. Agri., Setsunan Univ.)

PC-191 Transcriptional Regulation in Rice Anther under High-Temperature-Induced Male Sterility Conditions

Makiko Kawagishi-Kobayashi[1], Makoto Kashima[2], Atsushi Higashitani[3], Yuzuru Tozawa[4] ([1]NIAS, NARO, [2]Col. Sci. Eng., Aoyama Gakuin Univ., [3]Grad. Sch. Life Sci., Tohoku Univ., [4]Grad. Sch. Sci. Eng., Saitama Univ.)

PC-195 Identification of genes involved in boron-dependent mRNA degradation of the boron transporter NIP5:1 in *Arabidosis thaliana*

Mayuki Tanaka, Sotomayor L. Saul, Naoyuki Sotta, Toru Fujiwara (Grad. Sch. Agri. Life Sci)

PC-199 Involvement of Ribosomal Protein uL13 in Regulation of Boron-dependent Translation Process in Shoots of *Arabidopsis thaliana*

Hirofumi Fukuda[1], Naoyuki Sotta[1], Mayuki Tanaka[1], Yukako Chiba[2,3], Kyoko Miwa[4], Yui Yamashita[5], Haruka Aoyama[3], Satoshi Naito[3,5], Toru Fujiwara[1] ([1]Agri., Univ. Tokyo, [2]Grad. Sch. Sci., Hokkaido Univ., [3]Grad. Sch. Life Sci., Hokkaido Univ., [4]Grad. Sch. Envr. Sci., Hokkaido Univ., [5]Grad. Sch. Agri., Hokkaido Univ.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-184 Analysis of the mechanism and significance of centromere arrangement in *Arabidopsis thaliana*

Takuya Sakamoto[1], Yuki Sakamoto[2], Daniel Slane[3], Nanami Ito[3], Sachihiro Matsunaga[3] ([1]Dept. Appl. Biol. Sci., Fac. Sci. Tech., Tokyo Univ. Sci., [2]Dept. Biol. Sci., Grad. Sch. Sci., Osaka Univ., [3]Dept. Integr. Biosci., Grad. Sch. Front. Sci., Univ. Tokyo)

PD-188 DNA methylation profiling in Arabidopsis egg cells

Hiroki Tsutsui[1], Marc Schmid[2], Ueli Grossniklaus[1] ([1]Department of Plant and Microbial Biology, University of Zurich, [2]MWSchmid GmbH)

PD-192 Intergenic splicing-mediated readthrough transcripts are targeted by NMD in *Arabidopsis*

Yukio Kurihara[1,2], Yuko Makita[1,3], Masaharu Kawauchi[1], Ami Kageyama[1], Tomoko Kuriyama[1], Minami Matsui[1] ([1]RIKEN CSRS, [2]Grad. Sch. Arts Sci., Univ. Tokyo, [3]Fac. Eng. Maebashi Inst. Tech.)

PD-196 AtCCR4-NOT, an mRNA decay machinery, is important for shoot regeneration

Toshihiro Arae[1], Sota Kurachi[2], Kosuke Kawai[2], Yuya Suzuki[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.)

PD-200 Ribosome stalling involved in plants' unfolded protein response

Tomoya Imamichi[1,2], Nao Kusumoto[2], Seidai Takamatsu[2], Yugo Honda[1], Shiori Muraoka[1], Hitoshi Onouchi[1], Satoshi Naito[1,2], Yui Imamichi[1] ([1]Grad. Sch. Agric., Univ. Hokkaido, Japan, [2]Grad. Sch. Life Sci., Univ. Hokkaido, Japan)

■ Systems biology

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-205 Marpolbase: development of the genome and expression database for the liverwort *Marchantia polymorpha*

Yasuhiro Tanizawa[1], Shogo Kawamura[2], Facundo Romani[3], Masaru Yagura[1], Takako Mochizuki[1], Mika Sakamoto[1], Shohei Yamaoka[2], Ryuichi Nishihama[4], Yasukazu Nakamura[1], Katsuyuki T. Yamato[5], John Bowman[6], Takayuki Kohchi[2] ([1]Dept. Informatics, NIG, [2]Grad. Sch. Biostudies, Kyoto Univ., [3]Dept. Plant Sci., Univ. Cambridge, [4]Fac. Sci. Tech., Tokyo Univ. Sci., [5]B.O.S.T., Kindai Univ., [6]Monash Univ.)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-202 Genome sequence and analysis of *Nicotiana benthamiana*, the model plant for interaction between organisms

Ken-ichi Kurotani[1], Hideki Hirakawa[2], Kenta Shirasawa[2], Yasuhiro Tanizawa[3], Yasukazu Nakamura[3], Sachiko Isobe[2], Michitaka Notaguchi[1] ([1]Biosci. Biotech. Center, Nagoya Univ., [2]Kazusa DNA Research Inst., [3]Natl. Inst. Genetics)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-203 Transcriptomics of NAM parental lines of wheat from its eastern transmitted area

Yasuyuki Nomura[1], Shuhei Nasuda[2], Kentaro Shimizu[3,4], Atsushi J. Nagano[5,6] ([1]Res. Inst. Food Agri., Ryukoku Univ., [2]Grad. Sch Agri., Kyoto Univ., [3]Dept. Evol. Biol. Envir. Studies, Univ. Zurich, [4]Kihara Biol. Inst. Res., Yokohama City Univ., [5]Fac. Agri., Ryukoku Univ., [6]IAB, Keio Univ.)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-204 Neighbor eGWAS: Incorporating neighbor genotypic identity into field transcriptomics of *Arabidopsis thaliana*

Yasuhiro Sato[1,2], Rie Shimizu-Inatsugi[1], Kentaro K. Shimizu[1,3], Atsushi J. Nagano[2,4] ([1]Univ. of Zurich, [2]Ryukoku Univ., [3]Yokohama City Univ., [4]Keio Univ.)

■ New technology

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-209 Development of plant culture devices for observing root systems under heterogeneous nutrient conditions

Naoyuki Sotta, Toru Fujiwara (Grad. Sch. Agr. Life Sci., Univ. Tokyo)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-206 Simple Agrobacterium-Mediated Infiltration Methods can be used for Single-Cell Genome Editing, and Hormone-Free Adventitious Bud and Somatic Embryo Induction in Arabidopsis thaliana

Jun Nakayama[2], Mai Satoh[2], Toru Ishizuka[2], Yosuke Takeuchi[2], Tubasa Yamagata[2], Miho Ikeda[1,2] ([1]Biosci. Biotech., Fukui Pref. Univ., [2]Grad. Sch. Sci. Eng., Saitama Univ.)

PB-210 Chinese cabbage weight prediction using individual spatio-multi-temporal UAV imagery and deep learning techniques

Andres Aguilar Ariza[1], Masanori Ishii[2], Toshio Miyazaki[3], Toru Fujiwara[1], Wei Guo[2], Takehiro Kamiya[1] ([1]Graduate School of Agricultural and Life Sciences, The University of Tokyo, [2]Institute for Sustainable Agro-Ecosystem Services, The University of Tokyo, [3]Nippon Norin Seed Co)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-207 Attempts toward the development of protocols required for the transformation of *Coleochaete scutata*

Haruna Nomizo[1], Naoyuki Uchida[2] ([1]Grad. Sch. Sci., Nagoya Univ., [2]Ctr. Gene. Res., Nagoya Univ.)

PC-211 The amount of total soluble protein produced in an etiolated rice seedling and conditions that enhance the protein amount

Akiko Watanabe[1], Yukino Takeshima[1,2], Airi Kanouchi[2,3], Shuri Takahashi[2,4], Karin Sasaki[2,5], Noa Takahashi[2,6], Yukihiro Ito[1,2] ([1]Grad Sch Agri Sci, Tohoku Univ, [2]EGGS, Tohoku Univ, [3]Yamagata Higashi HS, [4]Hanamaki Kita HS, [5]Renessance HS, [6]Sakata Higashi HS)

PD Fri., March 17 10:30–12:00 / 14:30–16:00

PD-208 Establishment of novel viral vector for foreign protein expression in *Vigna* species

Hirotaka Ariga, Tamaki Ichiki-Uehara, Ken Naito (Res. Center of Genetic Resources, NARO)

PD-212 Development of a vector system (Boost Gateway vector system) that facilitates the preparation of GAL4/UAS constructs and enhancement of expression with various promoter

Tsuyoshi Nakagawa[1], Mostafa Aboulela[1], Yuya Yamada[1], Sumie Ishiguro[2], Takushi Hachiya[1], Hironaka Tsukagoshi[3] ([1]Dep. Mol. Func. Genomics, Shimane Univ., [2]Grad. Sch. Agr., Nagoya Univ., [3]Faculty of Agriculture, Meijo University)

■ Others

PA Fri., March 17 09:00–10:30 / 13:00–14:30

PA-213 Isolation and analysis of high lipid accumulation strains by random DNA insertion in *Nannochloropsis oceanica* NIES-2145

Kai Hoshina[1], Masako Iwai[1,2], Kumiko Okazaki[3], Tomokazu Kurita[3], Shinichiro Maeda[4], Akihide Takami[4], Noriaki Tounosu[1], Mie Shimojima[1], Takashi Yamamoto[3], Atsushi Sakamoto[3], Hiroyuki Ohta[1,2] ([1]Sch. Life Sci. and Tech., Tokyo Tech, [2]Phytolipid Technologies Co., Ltd., [3]Division of integrated Science for Life, Graduate School of Integrated Science for Life, Hiroshima University, [4]Mazda Motor Corporation)

PB Fri., March 17 09:00–10:30 / 14:30–16:00

PB-214 Information basis for wild accessions of *Lotus* /*Glycine*, and their application

Shusei Sato[1], Yusdar Mustamin[1], Masaru Bamba[1], Shun Hashimoto[1], Masatsugu Hashiguchi[2], Takuyu Hashiguchi[2], Hidenori Tanaka[3] ([1]Grad. Sch. Life Sci., Tohoku Univ., [2]Fac. Regional Innovation, Univ. of Miyazaki, [3]Fac. Agr., Univ. of Miyazaki)

PC Fri., March 17 10:30–12:00 / 13:00–14:30

PC-215 How to survive in the organizations with serious research ethics issue

Emiko Harada (The Univ. of Shiga Pref.)