

The JSRR's 20th Anniversary Symposium
The Latest Frontiers of Root Research in Asia
35th JSRR Biannual Meeting
November 5 - 6, 2011

Access to the Symposium Site

The Yayoi Auditorium is a beautiful wood- and glass-made construction located in [the Yayoi campus of the University of Tokyo](http://www.a.u-tokyo.ac.jp/english/campus/) (<http://www.a.u-tokyo.ac.jp/english/campus/>). It takes only two minutes by walk from a subway station, "Todai mae" of Namboku Line (Tokyo Metro).

会場の最寄り駅は、東京メトロ（地下鉄）の南北線「東大前」駅です。

From Narita Airport

Rout 1:

Narita Airport = [Keisei Skyliner (55 min.) or **an ordinal express (特急) Access-Express** (~~Access Tokkyu~~ 70 min.)] => Nippori Station (日暮里) = [JR Yamanote line (toward Ikebukuro) (15 min.)] => Komagome Station (駒込) = [Namboku Line (5 min.)] => Todaimae Station (東大前)

Rout 2:

Narita Airport = [JR Narita Express (55 min.)] => Tokyo Station (東京) [See below for the transportation from Tokyo Station to the symposium site.]

From Haneda Airport

Haneda Airport = [Tokyo Monorail (20 min.)] => Hamamatsucho Station (浜松町) => [JR Yamanote line (toward Ueno) (35 min.)] => Komagome Station (駒込) = [Namboku Line (5 min.)] => Todaimae Station (東大前)

From Tokyo Railway Station

Rout 1: Tokyo Station (東京) = [JR Yamanote line (toward Ueno) (25 min.)] => Komagome Station (駒込) = [Namboku Line (5 min.)] => Todaimae Station (東大前)

Rout 2: Tokyo Station (東京) = [Tokyo Metro Maruno-uchi Line (15 min.)] => Korakuen Station (後樂園) = [Namboku Line (5 min.)] => Todaimae Station (東大前)

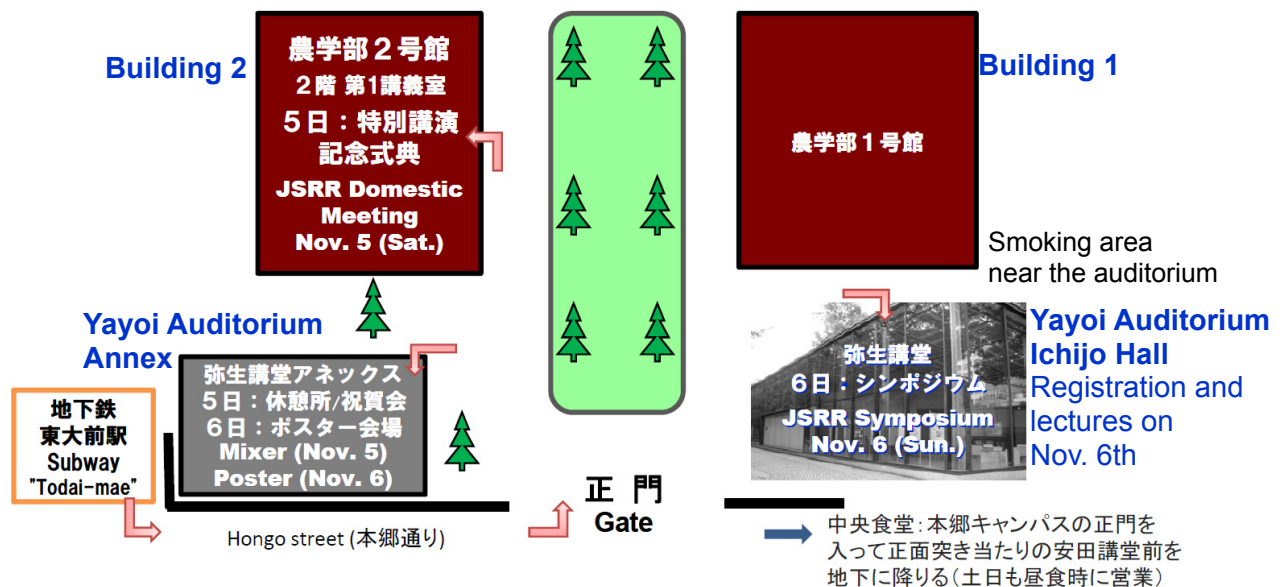
Registration desk (受付)

- November 5th (Sat.) Second floor of Building 2 (農学部 2 号館 2 階)
- November 6th (Sun.) Yayoi Auditorium (Yayoi Kodo 弥生講堂 一条ホール)

Please also see the campus map in the next page.

Outline of the Symposium

Nov. 5 / 11月5日(土)		Nov. 6 / 11月6日(日)	
農学部2号館2階 第1講義室 Building 2	弥生講堂アネックス Yayoi Auditorium Annex	弥生講堂一条ホール Yayoi Auditorium Ichijo Hall	弥生講堂アネックス Yayoi Auditorium Annex
09:00~ Registration 受付		09:00~ Registration 受付	10:00 ~
10:00~12:00 Special lectures 特別講演(東日本大震災)	アネックスを休憩室 にお使い頂けます Break room	09:30~11:45 Opening and invited lectures シンポジウム	Preparation for poster presentation ポスター設置
12:00~13:30 Lunch 昼休み(本郷キャンパス安 田講堂前地下の中央食 堂がご利用頂けます)	12:00~13:30 ビジネス会議 休憩室 Break room	12:00~13:50 Lunch 昼休み(本郷キャンパス 安田講堂前地下の中央 食堂がご利用頂けます)	Poster presentation ポスター発表 12:30~13:10 A 13:10~13:50 B
13:30~15:00 JSRR Awards 2011年度の根研究会賞授 賞式・受賞講演 15:15~17:15 Anniversary Ceremony 20周年記念式典	休憩室 Break room	14:00~16:30 Invited lectures, comments and Closing	14:00~16:00 Removal of posters
	17:30~20:00 Mixer 20周年記念祝賀会		



Domestic programs on November 5 (Sat.)

11月5日(土)のプログラム

<特別講演> 10:00~12:00 農学部2号館2階 第1講義室

進行 森田茂紀(東京大学)

講演 笹川正樹氏(福島県いわき農林事務所)

福島県いわき市における東日本大震災の影響と対策

講演 根本圭介氏(東京大学大学院農学生命科学研究科)

東京大学農学部における震災復興支援研究

参加費無料・一般公開

<授賞式と受賞講演> 13:30~15:00 農学部2号館2階 第1講義室

2011年度 根研究会賞 学術奨励賞2件

牧田直樹氏(京都大学大学院農学研究科)

樹木の微細根形態からみた森林炭素動態に関する研究

モハマド エムダドウル ハック氏(Md. Emdadul Haque)

(農研機構 作物研究所 麦研究領域)

コムギ種子根の誘導的通气組織形成の形態・生化学的解析

参加費無料・一般公開

<記念式典> 15:15~17:15 農学部2号館2階 第1講義室

進行 阿部 淳(東京大学)

挨拶 巽 二郎(京都工芸大学)

祝辞 Peter Gregory (ISRR 会長)

記念講演 大門弘幸(大阪府立大学)

農耕地の持続的生産機能と作物の根

名誉フェロー授与 苅住 昇 会員

参加費無料・一般公開

<記念祝賀会> 17:30~20:00 弥生講堂アネックス **Mixer at Yayoi Auditorium Annex**

企画進行 村上敏文(東北農業研究センター)・小柳敦史(作物研究所)

研究集会懇親会・研究会賞受賞者祝賀会・シンポジウムミキサーを兼ねて行います。

懇親会費: 3,000円(当日, 受付にて現金払い)

休憩室: 弥生講堂アネックスをご利用頂けます。

Yayoi Auditorium Annex is available as a break room in daytime.

昼食: 本郷キャンパスの安田講堂前の地下にある中央食堂が土日営業しています。

土曜は, 農学部周辺の小さい食堂もいくつか開いています。

Program of the JSRR's 20th Anniversary Symposium (Nov. 6, 2011)

The Latest Frontiers of Root Research in Asia

Moderator: Prof. Akira Yamauchi (Nagoya University, Japan)

09:30–11:45 Morning session

09:30–09:45 Opening remarks

Prof. Shigenori Morita (The University of Tokyo, Japan; Founder of JSRR)

09:45 Dr. Jun Abe (The University of Tokyo, Japan)

Keynote lecture: The necessity of root research in Asia

10:25 Prof. Yowhan Son (Korea University, Korea)

Invited lecture: Root biomass and respiration for Korean forests

11:05 Prof. Xiaojing Liu (Chinese Academy of Science, China)

Invited lecture: A primary study on the adapting mechanisms of cotton roots to saline soils

12:00–13:50 Lunch and Poster session (Poster session will be held in the Annex building)

12:30–13:10 Poster session core time A

13:10–13:50 Poster session core time B

14:00–17:00 Afternoon session

14:00 Prof. Xiyin Zhang (Chinese Academy of Science, China)

Invited lecture: Long-term monitoring root growth and soil water uptake by winter wheat for efficient water use in the North China Plain

14:40 Dr. Amelia Henry (International Rice Research Institute, Philippines)

Invited lecture: IRRI's drought stress research in rice with emphasis on roots: Accomplishments over the last 50 years

15:20 Prof. Anan Polthanee (Khon Kaen University, Thailand)

Invited lecture: Agricultural problems by waterlogging in Northeast Thailand

16:00 Importance of rice root research in Asian situations: A commentary

Dr. Roel Suralta (Philippine Rice Research Institute, Philippines)

16:15 Comments from Moderator

Prof. Akira Yamauchi (Nagoya University, Japan)

16:30–16:45 Closing remarks

Prof. Jiro Tatsumi (Kyoto Institute of Technology, Japan; President of JSRR)



Akira. Yamauchi



Jun Abe



Yowhan Son



Xiaojing Liu



Xiyin Zhang



Amelia Henry



Anan Polthanee



Roel Suralta

Poster presentations (Titles and presenters)
ポスター発表 表題・発表者一覧

35th JSRR Biannual Meeting 第35回根研究集会

番号	表題	発表者
P01A	2層栽培・根系分割灌水による高糖度トマトの栽培法の開発(第2報) 上下層の土壌容積の違いがトマトの生育に及ぼす影響	林 浩之
P02B	根径からみたバスケット法によるテンサイ品種根系の簡易判別法について	今野弘規
P03A	ジベレリンによるシロイヌナズナの根における鉄吸収関連遺伝子の発現誘導	松岡啓太
P04B	浸透圧ストレス環境下におけるイネ科作物の水利用機能研究	辻 伸弥
P05A	World Rice Collection を用いた塩ストレス条件下での初期生育反応の品種間差異	天野寿紀

20th Anniversary Symposium (The Latest Frontiers of Root Research in Asia)

No.	Title	Presenter
P06B	Periderm formation in roots of monocotyledonous medicinal plant <i>Merwillia plumbea</i> (Lindl.) Speta. under stress conditions	Alexander Lux
P07A	Field investigation of root and ground conditions for native licorice at Mongolia	Kiyoshi Omine
P08B	Seasonal changes of starch grain accumulation in roots of <i>Erianthus</i>	Fumitaka Shiotsu
P09A	The accumulation of cadmium is suppressed by apoplasmic barriers of roots	Michal Martinka
P10B	Identification of an ATP-binding cassette (ABC) transporter that is required for formation of suberin lamellae and the apoplastic barrier at the hypodermis in rice (<i>Oryza sativa</i>)	Katsuhiro Shiono
P11A	The shift of isoelectric point of beta-1,3-glucanases possibly involved in aluminum toxicity in soybean root	Eri Soga
P12B	Effect of PorySilicate-Iron sludge on rice roots at organic farming	Ryosuke Tajima
P13A	Physiological performance of direct seeding using iron-coated rice seeds under submerged and drained conditions	Shinsuke Mori
P14B	The effects of compost and phosphorus supply on onion growth of root and shoot	Hiroyuki Tsuji
P15A	Influence of different maturation periods of hairy vetch incorporated as green manure on growth of maize inoculated with <i>Gigaspora margarita</i>	Naoko Yamada
P16B	Growth and N ₂ fixation of soybean plants grown under different soil moisture contents in FRP pots	Sohei Asakura
P17A	Using technology of shoot and residue for green manure and forage production by leguminous crops and barley mixtures at paddy	Weon-Tai Jeon
P18B	Effect of root-deposited N of hairy vetch on the growth and N uptake of mixed-cropped oat	Arata Tarui
P19A	Effect of rhizobia primed with naringenin on root development and nodulation in <i>Pisum sativum</i> L.	Satori Nakamura
P20B	Morphological changes of <i>Sesbania rostrata</i> root under different soil properties	Atsushi Matsumura
P21A	Nitrogen fixation by endophytic bacteria isolated from sweet potato	Junko Terakado-Tonooka
P22B	Influence of excess soil water during early growth stage on soil microbial community structure in soybean field	Rintaro Hattori
P23A	Respiration rate and sugar concentration of wheat root affected by waterlogging in field and by root zone hypoxia in hydroponic culture	Asami Hamada
P24B	Do roots involved in poor grain filling of wheat in Western Japan?	Hideki Araki
P25A	Waterlogging tolerant teosinte (<i>Zea nicaraguensis</i>) has a large volume of aerenchyma and a barrier to radial oxygen loss in root	Tomomi Abiko
P26B	Variation for the capacity to form root aerenchyma and selection for highly aerenchyma forming lines in the rare teosinte <i>Zea nicaraguensis</i>	Yoshiro Mano
P27A	Root system development and hydraulic conductance in soybean plant grown under waterlogged conditions	Keiko Ota
P28B	Dynamic regulation of the root hydraulic conductivity of barely plants under salinity/osmotic stress	Maki Katsuhara
P29A	Water permeability of protoplasts derived from different portion of seminal root system in rice	Azumi Suganuma

P30B	Promotion of aerenchyma formation in rice primary roots by treatment with 1-Aminocyclopropane-1-carboxylic acid.	Kenta Yuki Yoshi
P31A	Recovery and compensation of nitrogen uptake by change of root morphology and gene expressions for ammonium transport under the osmotic stress condition in rice seedlings	Kyoko Toyofuku
P32B	Cultivar differences in root development under water deficit condition and its association with water uptake capacity in rice	Maya Matsunami
P33A	<i>qSOR1</i> , a major rice QTL involved in soil-surface rooting in paddy fields	Yusaku Uga
P34B	QTL for the plasticity in root system development triggered by soil moisture fluctuation stress in rice	Jonathan Niones
P35A	Identification of QTLs on lateral root development and the importance under soil moisture fluctuation stress conditions in rice	Satomi Ohashi
P36B	Role of plasticity in lateral root development triggered by mild drought stress in dry matter production using <i>Oryza</i> SNP panel of rice	Emi Kameoka
P37A	Investigation into molecular mechanisms of crown root formation and its application for improvements in root architecture in rice	Yuka Kitomi
P38B	Inhibition of auxin transport changes the morphology of root system and distribution of auxin in root system of rice seedlings	Atsushi Ogawa
P39A	Identification and characterization of reduced biomass production mutant of rice accompanied with reduced root elongation	Mitsuhiro Obara
P40B	Non-destructive imaging of aerenchyma development in the primary root of rice using X-ray Computed Tomography – A trial for time-course observation –	Tadafumi Bando
P41A	Different gene expression of the creeping-rooted type of a kind of Alfalfa (<i>Medicago varia</i>)	Xiaona Wang
P42B	Variation of $\delta^{13}C$ natural abundance in CO_2 released from the roots of rice and maize plants	Aki Kuribayashi
P43A	Stable carbon isotopic ratio ($\delta^{13}C$) of fine roots in tropical forests	Masaharu Sakai
P44B	Growth and development of birch (<i>Betula</i> sp.) roots grown under elevated CO_2 in FACE (A preliminary result)	Hirofumi Ito
P45A	Can microbial respiration explain mass loss, morphology, and chemical properties of dead fine root?	Ayumi Kawamura
P46B	Mycorrhizal hyphae respiration	Frida Andreasson
P47A	Relationships between morphology and respiration of fine roots	Saki Yamamoto
P48B	Tea roots changed respiratory activity in response to irradiated light information	Tomoo Homma
P49A	Coarse root respiration measurement using automatic chamber system	Masako Dannoura
P50B	Fine root respiration for <i>Pinus densiflora</i> forests in Mt. Jukyeob of Korea and Mt. Fuji of Japan	NamJin Noh
P51A	Linkage between under- and above-ground of three kinds of larch species grown under different levels of nitrogen and phosphorous	Qiaozhi Mao
P52B	Do trees growing on the steep slope have different root to shoot ratios from those on the flat site?	Nobuhiko Kasuya
P53A	Inter-specific robustness and intra-specific flexibility of whole-plants metabolic scaling from seedlings to giant trees	Shigeta Mori
P54B	Comparison of the mesh material in a root mesh method	Aiko Nakano

Dress code

Informal and casual wears are welcome.



During the 20-year history of the JSRR, many studies have been performed on plant roots, contributing new evidence to root science and technology. The JSRR has played an important role in enlarging the international network of root studies as a member of the ISRR in Asia. I look forward to celebrating the JSRR's 20th Anniversary Symposium in the coming November. I hope that the root research network will continue to expand on an international scale, particularly in Asia, and produce many useful results.

Jiro Tatsumi
President of Japanese Society for Root Research
Professor, Kyoto Institute of Technology



The Japanese Society for Root Research (JSRR) was founded in 1992, and it has operated for two decades. We are holding an international symposium to develop a network of root researchers in Asia in order to advance efforts to secure healthy food, a safe environment, and peace. Come join us!

Shigenori Morita
Chair of Organizing Committee
Professor, The University of Tokyo

About JSRR

The Japanese Society for Root Research (JSRR; <http://www.jsrr.jp/e/>) was established in 1992 to enhance plant root research and communication among plant root scientists in Japan and elsewhere. Nearly 450 individuals are registered members of the JSRR.

Over the course of its 20-year history, the JSRR has organized bi-annual domestic meetings and published the domestic newsletter *Root Research*. In addition, the JSRR organized several international symposiums. In particular, the JSRR co-organized the sixth Symposium of the International Society of Root Research (ISRR) with the ISRR in Nagoya City in 2001. Three hundred forty-one people from 34 countries participated in this symposium. The selected papers from the 6th ISRR Symposium were published as a special issue of *Plant and Soil* (Vol. 255, Issue. 1) and a book (*Root: The dynamic interface between plant and the Earth*, Kluwer Academic Publishers, 2003).

The JSRR began publishing an open access electronic journal, *Plant Root* (<http://www.plantroot.org/>), in 2007. *Plant Root* is the only international journal in the world that specializes in plant root science.

Organizing Committee's contact address

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