

The 4th

Yamaoka Memorial Foundation

# Science & Technology Lecture

## Food and Agriculture for a Sustainable Society

### Impact of Global Warming on Plants



*Rudolf Diesel*  
1858-1913

*Nogokichi Yamaoka*  
1888-1962

## A SUSTAINABLE FUTURE

**Free to attend**

Advance applications are required

English and Japanese Simultaneous Interpretation



### Plant Science Challenges to Global Warming

~ Aiming for Sustainable Food Production ~

#### Yasunari Fujita, Ph.D.

Senior Researcher, Biological Resources and Post-harvest Division, Japan International Research Center for Agricultural Sciences (JIRCAS); Professor, Faculty of Life and Environment Sciences, University of Tsukuba (Cooperative Graduate School Program)



### Wine in the Light of Climate Change in Germany

#### Prof. Dr. Christian Zörb

University of HOHENHEIM  
Executive Director; Institute of Crop Plants  
Chair; Quality of Plant Products and Viticulture

# March 24th, 2021

16:00-19:00

**Capacity**

▶ Venue: Limited to the first 50 people  
▶ Online: Limited to the first 500 people

● International Science Innovation Building, Kyoto University Yoshida Campus

Online lecture (ZOOM) will be held at the same time.

Registration

Please entry at website bellow.

<https://yamaoka-memorial.or.jp/event/index.html>

Entry deadline: 12:00 on March 23rd, 2021



Sponsored by **Yamaoka Memorial Foundation**

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## Purpose of the Lecture Meeting

This Science and Technology Lecture focused on “Renewable Energy” , a theme closely related to prevention of global warming, one of the 17 Sustainable Development Goals (SDGs) adopted by the United Nations in September 2015. Under the theme of, we invited lecturers from Japan and Germany three times.

From this fiscal year, lectures will be given three times in series on “Food” and “Agriculture” , which are also important issues as SDGs. The theme of this year as the 1st time will be „Impacts of Global Warming on Plants “. After keynote speeches held by experts from Japan and Germany, we expect active exchange of opinions will be made on a global theme of sustainable food and agriculture through panel discussions and exchange meetings mainly among young people who will lead the next generation.

## Speaker Introduction



### Yasunari Fujita, Ph.D.

Senior Researcher, Biological Resources and Post-harvest Division,  
Japan International Research Center for Agricultural Sciences (JIRCAS);  
Professor, Faculty of Life and Environment Sciences,  
University of Tsukuba (Cooperative Graduate School Program)

- 1998** Received a Ph.D. in applied biology from Kyoto University  
Research Fellow, Japan Society for the Promotion of Science (JSPS)  
Researcher, University of California, Berkeley
- 2000** Postdoctoral Researcher, JIRCAS
- 2006** Senior Researcher, Biological Resources Division, JIRCAS
- 2010** Associate Professor, Graduate School of Life and Environmental Sciences, University of Tsukuba (Cooperative Graduate School Program)
- 2011** Senior Researcher, Biological Resources and Post-harvest Division, JIRCAS
- 2012** Associate Professor, Faculty of Life and Environment Sciences, University of Tsukuba (Cooperative Graduate School Program)
- 2018** Professor, Faculty of Life and Environment Sciences, University of Tsukuba (Cooperative Graduate School Program)

#### < Awards received >

Highly Cited Researchers 2014, 2015, and 2016 (selected by Thomson Reuters),  
Highly Cited Researchers 2017, 2018, and 2019 (selected by Clarivate Analytics)

#### < Abstract >

### Plant Science Challenges to Global Warming

In recent years, global warming increases the intensity and frequency of extreme weather events that cause drought, desertification and salt accumulation, devastating farmland and thereby threatening sustainable food production. To feed 10 billion, which the global world population is expected to reach until some time in this century, while protecting the diversity of ecosystem and the environment suitable for life, it is necessary to develop sustainable and robust food production system. In this lecture, I will make a report on the forefront of cross-sectoral efforts against global warming based on advanced plant science.



### Prof. Dr. Christian Zörb

Universität Hohenheim  
Executive Director; Institute of Crop Plants  
Chair; Quality of Plant Products and Viticulture  
Schloss Westflügel 70593 Stuttgart, Germany

- 1998** Diploma in Biology (Plant Science), Justus Liebig Univ. Giessen  
Dr. rer. nat. (PhD), Justus Liebig Univ. Giessen, Faculty of Biology
- 1999-2007** PostDoc experience in several labs including UK, USA and Germany  
Habilitation, Justus Liebig Univ. Giessen, Venia legendi in Plant Nutrition
- 2005-2007** Research Associate, Bundesanstalt für Ernährung und Lebensmittel, Detmold
- 2007-2012** Research Associate, Univ. of Kiel, Institute of Plant Nutrition and Soil Science
- 2012-2013** Senior Scientific Fellow, School of Biology, Univ. of Sussex, Brighton, UK
- 2012-2014** Professor of General and Applied Botany, Univ. of Leipzig, Institute of Biology
- Since 2014** Professor of Quality of Plant Products and Viticulture, Univ. of Hohenheim

Research interests: Crop Plants, Viticulture, Climate Change, Quality Aspects, Plant Nutrition

#### < Abstract >

### Wine in the light of climate change in Germany

In Germany, wine has been grown for about 2000 years. Climate change is now suggesting shifts that impact on winegrowing. Climate-induced warmer weather leads to early ripening of the berries and premature grape harvesting and changes the style and aroma of the wine. Moreover, the spread of insect pests and harmful fungi that affect the vine. Approaches must be sought to counter this and to maintain the style of the famous German grape varieties in the future.

## About the Sponsor "Yamaoka Memorial Foundation"

Magokichi Yamaoka, founder of Yanmar Group, succeeded in developing world' s first compact diesel engine, which originates from ones invented by Dr. Rudolph Diesel in Germany, and hence spread this type of engines all over the world. With this background, the Yanmar Group has always been grateful for German technology and culture since it was founded. With such feelings of gratitude, Yamaoka Memorial Foundation was established to promote cultural exchanges between Germany and Japan in order to contribute to the sustainable development of our society.

## Access

City Bus: About 30 min(No.206)  
Get off at "Kyodai Seimon-mae" → **Yoshida Campus**  
Taxi: About 20 min.  
Bound for Kitaoji Bus Terminal via Hihashiyama Street

