

# Redox Week in Sendai 2022

## STINT-JSPS Joint Symposium

**2nd STINT-JSPS Joint Symposium**

**“Redox Biology for Human Health and Drug Development”**

**October 28, 2022**

**Tohoku University Seiryō Auditorium, Sendai, Japan**

**Main Organizers from Tohoku University:**

**Masayuki Yamamoto, M.D., Ph.D.**

**Yoshiro Saito, Ph.D.**

Supported by

**STINT**

**The Swedish Foundation for International  
Cooperation in Research and Higher Education**



**JSPS**

**Japan Society for the Promotion of Science**



**Sendai Tourism, Convention and International Association**

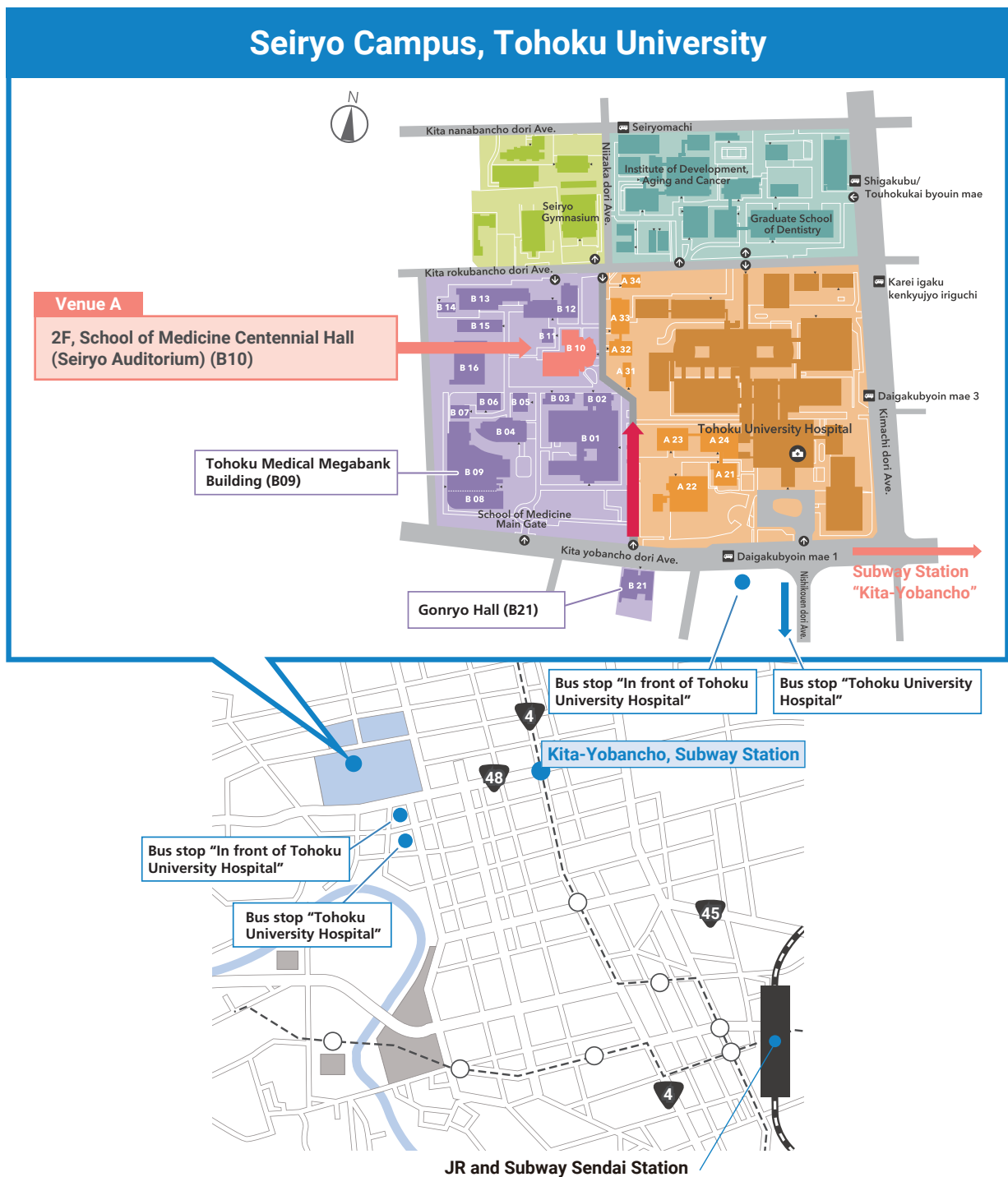


# Access

**Venue:** Tohoku University Seiry Auditorium, Sendai, Japan  
2-1 Seiryomachi, Aoba, Sendai 980-8575, Japan  
<https://www.med.tohoku.ac.jp/english/map/directions/index.html>

**Sendai City Subway:** Take a subway for “Izumi Chuo”, and get off the subway at “Kitayobancho” Station (About 5 min from Sendai Station, ¥210). Leave “Kitayobancho” Station from the exit labelled “North 2 Exit”, from which it will be a 15 min walk to Seiry campus.

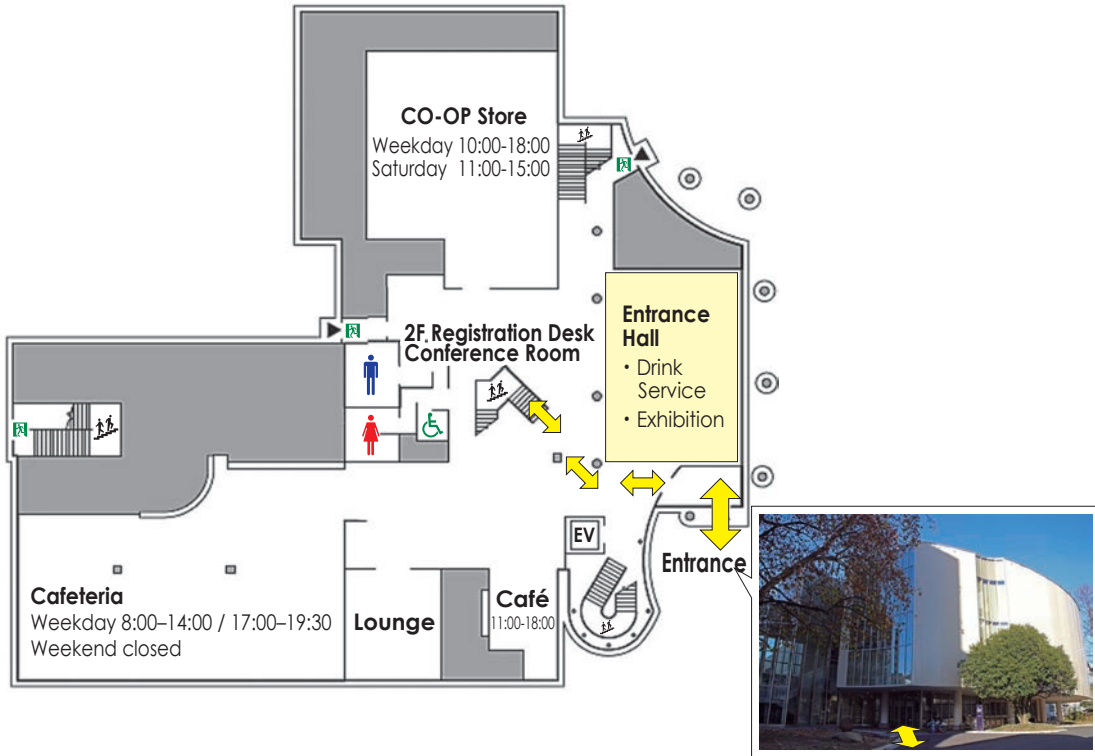
**Taxi:** About 10 min about ¥1,300 from JR Sendai Station Taxi Pool.



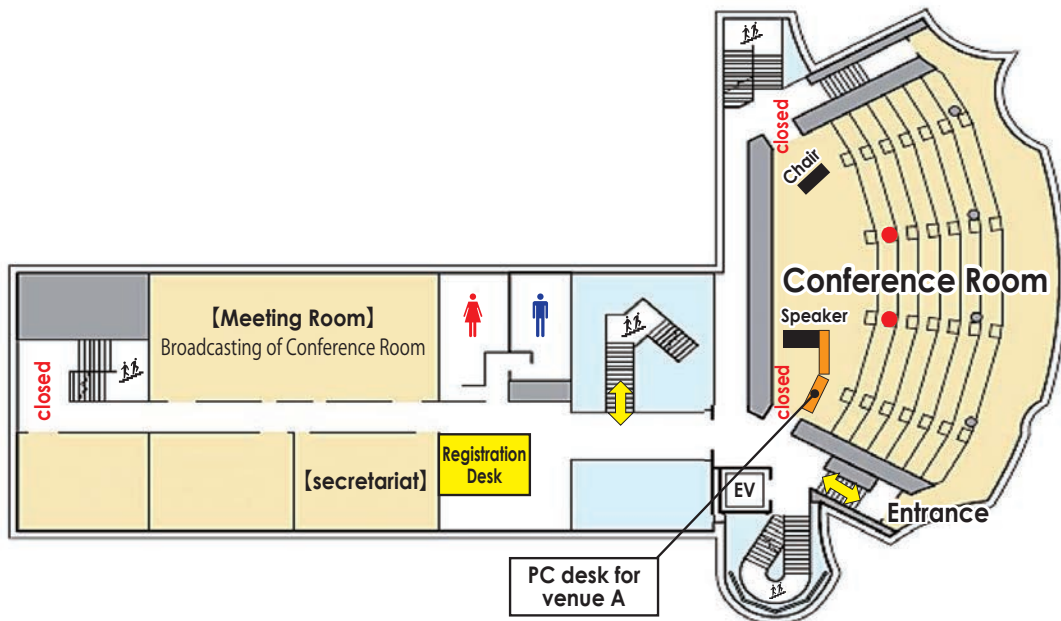
# Floor Plan

Tohoku University Seiryō Auditorium, Sendai, Japan

1F



2F



## Information for Participants

**Redox Week in Sendai 2022 including STINT-JSPS Joint Symposium will be held both face-to-face and online.**

**Recording and photography is prohibited in all the sessions during the conference.**

- Oral presentations are distributed by Zoom during the session.
- During all the presentations, Q&A will be conducted using the designated comment section on “online conference page”.

### Registration

Registration Desk:

Place: 2F Seiryō Auditorium

Date & Time: Oct. 28 (Fri.) 9:30-

Registration Fee:

- “Redox Week in Sendai 2022” (Oct. 28 - Nov. 1)

Category	On-site Registration: Sep. 21 – 17:00, Nov. 1, 2022 (JST)
Regular	JPY 60,000
Student (including postgraduate)*1	JPY 30,000

\*1: Students are required to submit identification at the registration desk.

※Registration Fee includes;

- > “STINT-JSPS Joint Symposium” Printed material of Program & Abstract book
- > “Redox Week in Sendai 2022” Name Badge (for on-site participants)
- > “Redox Week in Sendai 2022” Receipt of registration fee (will be available for download from the online registration system after completion of the payment.)
- > “Redox Week in Sendai 2022” Certificate of attendance (will be available for download from the online registration system after conference.)
- > “Redox Week in Sendai 2022” Program & Abstract book (PDF)
- > “Redox Week in Sendai 2022” Printed material of Program Book (for on-site participants)

Name Badge and Program Book will be provided at the on-site Conference Registration Desk.

- STINT-JSPS Joint Symposium only (Oct. 28)

Conference	Registration Fee: On-site Registration
STINT-JSPS Joint Symposium only	Free

※Registration Fee includes;

- > “STINT-JSPS Joint Symposium” Printed material of Program & Abstract book
- > “STINT-JSPS Joint Symposium” Name Badge

Pre-registered Participants:

Please receive your Name Badge and Program & Abstract Book at the registration desk on your arrival at the venue.

### Measures to prevent against infectious diseases, such as COVID-19

- > Please wear a mask at the venue.
- > Please check your temperature at the registration desk. Please put/place your temperature sticker on your name badge.
- > Please use hand sanitizer when you enter a room.

### Lunch

Those who registered for the STINT-JSPS joint symposium on the website by October 12 will have a lunch box ticket with your Name Badge. The lunch will be provided at the registration desk. Please receive the lunch box ticket at the registration desk when you pick up your Name Badge. Please note that there will be a limited number of lunch box prepared and will be provided on a first-come-first-served basis.

### Coffee Break

Coffee will be provided during the conference at 1F.

# Information for Presenters and Chairpersons

Presentation time:

Presentation	Time
Plenary Lecture	<b>45 min</b> including 10 min discussion
Sessions	<b>30 min</b> including 5 min discussion

Presentation data:

> Please submit your presentation data at the PC desk at the venue at least 30 min before your session starts.

PC desk

Place: 2F Seiry Auditorium

Date & Time: Oct. 28 (Fri.) 9:30-

> The PC used for the presentations will be provided by the conference. Please bring your data on a USB memory stick.

- The PC provided for presentations is as follows:

- OS: Windows 10

- Applications: Office PowerPoint2013, 2019

- The aspect ratio of the projection for the presentation is 16:9. We recommend the 16:9 aspect ratio for presentation slides.

- The fonts of your presentation data should be Arial, Times New Roman or Century. Do not use special or downloaded fonts.

- Please run a virus check on your computer in advance.

- Please check your presentation data including images by pasting the data from host/main computer to another computer to check whether the data are shown properly.

- All the copied data will be deleted by organizers after the conference has ended.

\*Mac users are strongly recommended to preview the data on a Windows computer in advance. Please note “keynote” cannot be used.

Presentation Instructions:

> Presenter View in PowerPoint slideshow cannot be used.

> Each presentation file which is received at the PC desk will be opened on a PC on the podium. At the start of your presentation, you have to operate and display it under the Zoom “Share” function.

> During your presentation, you can forward your presentation slide by yourself by using a mouse on the podium.

> Please be seated at the “next speaker seat” at least 10 min before your presentation start.

Request for Chairpersons:

> Please be seated at the “next chairperson’s seat” at least 10 min before your session starts.

> Please finish your session on time.

**Friday, 28th October**

## ■ Opening Remarks

10:30-10:40

Opening Remarks

Masi Yamamoto

*Tohoku University, Japan*

## ■ Plenary Lecture 1

Chairperson: Masi Yamamoto (Tohoku University)

10:40-11:25

**PL1** Development of specific TXNRD1, GPX1 and GPX4 inhibitors

Elias S.J. Arnér<sup>1,2</sup>

<sup>1</sup>*Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden,* <sup>2</sup>*Department of Selenoprotein Research, National Institute of Oncology, Budapest, Hungary*

## ■ Plenary Lecture 2

Chairperson: Masi Yamamoto (Tohoku University)

11:25-12:10

**PL2** Selenium biology and related diseases- Application to the pandemic counterplan

Yoshiro Saito

*Graduate School of Pharmaceutical Sciences, Tohoku University, Japan*

## ■ Lunchtime (12:10-13:00)

### ■ Session 1

Chairperson: Takafumi Suzuki (Tohoku University)

13:00-13:30

**S1** Multiplex profiling of cell type-specific expression of TrxR1 and Nrf2 in non-small cell lung cancer

Alfonso Martin-Bernabe<sup>1</sup>, Georgios Tsakonas<sup>1</sup>, Pablo Moreno-Ruiz<sup>1</sup>, Renata Papatella Araujo<sup>2</sup>, Linnéa La Fleur<sup>3</sup>, Johan Botling<sup>3</sup>, Carolina Wählby<sup>2</sup>, Patrick Micke<sup>3</sup>, Artur Mezheyeuski<sup>3</sup>, Elias Arner<sup>1</sup>, Simon Ekman<sup>1</sup>, Arne Östman<sup>1</sup>

<sup>1</sup>*Department of Oncology-Pathology, Karolinska Institutet, Stockholm, Sweden,* <sup>2</sup>*Department of Pharmaceutical Biosciences, Uppsala University, Uppsala, Sweden,* <sup>3</sup>*Department of Immunology, Genetics and Pathology, Uppsala University, Uppsala, Sweden*

13:30-14:00

**S2** The NRF2 response to irreparable damage

Liam Baird

*Graduate School of Medicine, Tohoku University, Japan*

**14:00-14:30****S3** NOX2 and immunity regulation through oxidation pathways in inflammation and cancerRikard Holmdahl*Karolinska Institutet, Sweden***14:30-15:00****S4** Recombinant selenoprotein production: a novel opportunity for redox biochemistryQing Cheng<sup>1</sup>, Elias S.J. Arnér<sup>1,2</sup><sup>1</sup>*Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden,* <sup>2</sup>*Department of Selenoprotein Research, National Institute of Oncology, Budapest, Hungary***Break (15:00-15:20)****Session 2**

Chairperson: Yoshiro Saito (Tohoku University)

**15:20-15:50****S5** Increased ion permeability of the plasma membrane through lipid peroxidation is essential for triggering of ferroptosisYusuke Hirata*Laboratory of Health Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan***15:50-16:20****S6** Mitochondrial depletion of glutaredoxin 2 induces metabolic dysfunction-associated fatty liver disease in miceLucia Coppo<sup>3</sup>, Valeria Scalcon<sup>1</sup>, Alessandra Folda<sup>1</sup>, Mariagiovanna Lupo<sup>2</sup>, Federica Tonolo<sup>1</sup>, Naixuan Pei<sup>3</sup>, Ilaria Battisti<sup>1,4</sup>, Nicola Ferri<sup>2</sup>, Giorgio Arrigoni<sup>1,4</sup>, Alberto Bindoli<sup>1,5</sup>, Arne Holmgren<sup>3</sup>, Maria Pia Rigobello<sup>1</sup><sup>1</sup>*Department of Biomedical Sciences, University of Padova, Padova, Italy,* <sup>2</sup>*Department of Medicine, University of Padova, Padova, Italy,* <sup>3</sup>*Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden,* <sup>4</sup>*Proteomics Center, University of Padova and Azienda Ospedaliera di Padova, Padova, Italy,* <sup>5</sup>*Institute of Neuroscience, CNR c/o Department of Biomedical Sciences, University of Padova, Padova, Italy***16:20-16:50****S7** Regulation of PTP1B activity by the thioredoxin and glutaredoxin/glutathione systemsMarkus Dagnell<sup>1</sup>, Lucia Coppo<sup>1</sup>, Naixuan Pei<sup>1</sup>, Qing Cheng<sup>1</sup>, Elias S.J. Arnér<sup>1,2</sup><sup>1</sup>*Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden,* <sup>2</sup>*Department of Selenoprotein Research, National Institute of Oncology, Budapest, Hungary***16:50-17:20****S8** Detection and structure analysis of lipid-derived radicals and oxidized phospholipidsKen-ichi Yamada*Kyushu University, Japan***Closing Remarks****17:20-17:30**

Closing Remarks

Masi Yamamoto

*Tohoku University, Japan*