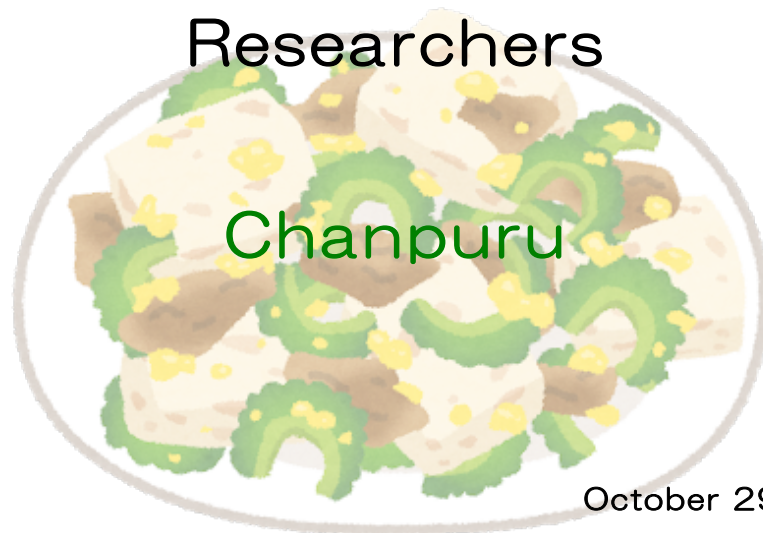


MEXT Grant-in-Aid for Scientific Research on Innovative Areas  
"Resonance Bio"

# International Meeting on Bioimaging for Young Researchers



October 29-30, 2018

Okinawa Institute of Science and Technology Graduate University  
(OIST), Okinawa, Japan

# What is Chanpuru?

An Okinawan stir fry dish in which ingredients are anything.

In this meeting, we anticipate emergence of a surprising flavor from the individual ingredients.

Young researchers from Resonance Bio, OIST and Academia Sinica, Taiwan bring cutting-edge imaging methods and applications, aiming to establish connections/collaborations among participants in our current projects and also future works.

# Who should attend?

Everybody interested in the field of imaging technologies and their applications in life sciences.

The meeting provides many opportunities for scientific presentations, discussions and social activities to promote interactions among young researchers as well as senior investigators.

## Sponsorship

MEXT Grant-in-Aid for Scientific Research on Innovative Areas "Resonance Bio"

## Co-Sponsorship

Okinawa Institute of Science and Technology Graduate University (OIST)

Academia Sinica, Taiwan

## Organizing Committee

Kohei OTOMO (Hokkaido University, Resonance Bio)

Hirokazu ISHII (Hokkaido University, Resonance Bio)

Ryosuke ENOKI (Hokkaido University, Resonance Bio)

## Schedule

\* for RB members and oversea attendees

28th October (Sun)

15:00 ~ Check-in\*  
Hotel: Rizzan Sea-Park Hotel Tancha-Bay

29th October (Mon)

06:30 ~ 08:30 Breakfast\*  
09:00 Shuttle Bus (Hotel→OIST\*)

10:00 ~ 17:00 1st day

10:00 ~ 10:05 Opening remark @ C209

10:05 ~ 11:20 Oral Session 1 (25 min × 3) @ C209

Chair: Kohei Otomo

10:05 ~ 10:30 Bernd Kuhn (OIST)

10:30 ~ 10:55 Feby Wijaya Pratiwi (Academia Sinica)

10:55 ~ 11:20 Kunihiro Morishima (invited by RB; Nagoya Univ.)

11:20 ~ 11:35 Photo Session

11:35 ~ 12:35 Lunch

12:35 ~ 13:50 Oral Session 2 (25 min × 3) @ C209

Chair: Hirokazu Ishii

12:35 ~ 13:00 Yuki Sugiyama (OIST)

13:00 ~ 13:25 Ryosuke Enoki (RB; Hokkaido Univ.)

13:25 ~ 13:50 Tsunghan Hsieh (OIST)

13:50 ~ 14:10 Break

14:10 ~ 17:00 Poster Session @ Meeting Room

14:10 ~ 15:30 Flash Presentation (1 min / person)

15:30 ~ 16:15 Poster Session (odd number)

16:15 ~ 17:00 Poster Session (even number)

17:20 Shuttle Bus (OIST→Hotel)

18:00 ~ 20:00 Banquet at the hotel (Restaurant Blue Lagoon)

30th October (Tue)

06:30 ~ 08:30 Breakfast\*

09:15	Shuttle Bus (Hotel→OIST) *
10:00 ~ 18:00	2nd day
10:00 ~ 11:15	Oral Session 3 (25 min × 3) @ C209
	Chair: Ryosuke Enoki
10:00 ~ 10:25	Christopher Roome (OIST)
10:25 ~ 10:50	Weng-Man Chong (Academia Sinica)
10:50 ~ 11:15	Yosuke Okamura (RB, Tokai Univ.)
11:15 ~ 11:30	Break
11:30 ~ 13:00	Microscopy room tour (Introduction @ C209)
11:30 ~ 11:40	Aim of the tour (Kohei Otomo)
11:40 ~ 12:00	OIST introduction (Mizuki Shimanuki)
12:00 ~ 13:00	Microscopy room tour
13:00 ~ 14:00	Lunch
14:00 ~ 15:30	Group discussion (4 table) @ C210
15:30 ~ 15:45	Break
15:45 ~ 16:45	Panel Presentation @ C210
16:45 ~ 17:00	Poster award ceremony & closing remark @ C210
17:00 ~ 18:00	Free
18:00	Shuttle Bus (OIST→Hotel) *

31th October (Wed)

06:30 ~ 08:30	Breakfast *
~ 10:00	Check-out *
09:30	Shuttle Bus (Hotel→OIST) *
10:30 ~ 15:35	ABiS-GBI-OIST-ResonanceBio Joint Symposium 'Frontiers in Bioimaging'

## On-site Registration

All participants are requested to check-in at the reception desk, which is opened from 9:30 am to 12:00 pm on each day. Please pick up your name tag along with lunch tickets (if you ordered) and vote cards for the poster award.

If you arrived after 12pm or if you need any help during the meeting, please find the organizers.



Kohei OTOMO



Hiro ISHII



Ryosuke ENOKI

## Accommodation

Rooms for participants from Resonance Bio or Academia Sinica are booked at the hotel as below.

### Rizzan Sea-Park Hotel Tancha-Bay

〒904-0496 1496 Tancha, Onna Village, Kunigami, Okinawa

TEL +81 98-964-6611

[https://www.rizzan.co.jp/english/access\\_index.html](https://www.rizzan.co.jp/english/access_index.html)

Room assignent \*Fixed

Triple			
1	Keisuke Nomura	Ryo Tachibana	Taiga Takahashi
2	Ai goto	Nigoghossian, Karina	Akari Takagi
Twin			
1	Ryosuke Kawakami	Kyohei Okubo	
2	Hong ZHANG	Masakazu Umezawa	
3	Kazushi Yamaguchi	Liu, Yen-Ting	
4	Masao Kamimura(10/28)	Yuhei Goto	Takafumi Kamada(8/29-8/30)
5	Kunihiro Morishima	Akihico Morozumi	
6	Yosuke Okamura(8/29-8/30)	Takashi Saito	Takafumi Kamada(8/28)
7	Shin Yoshizawa	Sota Takanezawa	

#### Room assignment (continued)

Twin			
8	Kohei Otomo	Masafumi Simojo	
9	Hirokazu Ishii	Shikagazu Oda	
10	Ryosuke Enoki	Tadatsune Iida	
11	Takahiro Kuchimaru	Shinya Sato	
13	Weng Man Chong	Misa Minegishi	
14	Feby Pratiwi	Hiroko Sakurai	
15	Chen, Chun-Wei	Liu, Pei-Jou	
Single			
1	Peilin Chen		
2	Tomomi Nemoto		
3	Mako Kamiya		
4	Michiyuki Matsuda		
5	Atsushi Miyawaki (10/28)		
6	Hideo Yokota (10/28)		

#### Lunch

Please come to the room C210 (see page 4) with a ticket enclosed in your name tag. Lunch boxes will be served there.

#### Banquet

Date: Oct. 29th (Mon)

Time: 18:00 - 20:00

Location: Restaurant Blue Lagoon @ Rizzan Sea-Park Hotel Tancha-Bay

#### Dress Code

Casual. Please bring clothes adapt to the weather and environment.

#### Oral Presentation

Please bring your laptop for your presentation and connect your laptop to the projector using the HDMI or VGA cables at the podium. Please follow any additional instruction given by your session chairpersons.

## Flash Presentation

All poster presenters briefly explain their own poster within a minute in sequence of poster numbers. During this session, organizers will control PC and open the slides instead of you.

## Poster Presentation

- Please set up your poster from 9am to 2pm on Oct. 29<sup>th</sup>. Your poster number will be placed on the poster board. Please find your poster number and put up your poster in the designated space.
- A poster author is required to stand by the poster during the scheduled poster session as below.

Odd number poster: 15:30 - 16:15

Even number poster: 16:15 - 17:00

- Presenters must remove their posters between 9:00 am-2:00 pm on Oct. 30

## Vote for the Best Poster

Please choose three posters and vote for the best poster award.

## Microscopy Room Tour, Group Discussion and Panel Presentation

- Participants go into 4 groups as follows:

	Group A	Group B	Group C	Group D
Chair	Akihico Morozumi, Univ. Tokyo	Feby Wijaya Pratiwi, Academia Sinica	Shinya Sato, Kyoto Univ.	Takahiro Kuchimaru, Jichi Med. Univ.
Sub-Chair	Kazushi Yamaguchi, Hokkaido Univ.	Masakazu Umezawa, Tokyo Univ. Sci.	Hirokazu Ishii, Hokkaido Univ.	Ryosuke Enoki, Hokkaido Univ.
	Akari Takagi, Kyoto Univ.	Yuhei Goto, NIBB	Yutaro Kashiwagi, Univ. Tokyo	Shin Yoshizawa, RIKEN
	Ryo Tachibana, Univ. Tokyo	Hong Zhang, Tokai Univ.	Karina Nigoghossian, Tokyo Univ. Sci.	Masafumi Shimojo, NIRS
	Keisuke Nomura, Osaka Univ.	Taiga Takahashi, Hokkaido Univ.	Kyohei Okubo, Tokyo Univ. Sci.	Ryosuke Kawakami, Ehime Univ.
	Ai Goto, Hokkaido Univ.	Sota Takanezawa, Ehime Univ.	Takashi Saitou, Ehime Univ.	Yosuke Okamura, Tokai Univ.
	Takafumi Kamada, Hokkaido Univ.	Misa Minegishi, Tokyo Inst. Tech.	Shigekazu Oda, NIBB	Kunihiro Morishima, Nagoya Univ.
	Chun-Wei Chen, Academia Sinica	Weng Man Chong, Academia Sinica	Augustinaite Sigita, OIST	Chiung wen Kuo, Academia Sinica
	Pei-Jou Liu, Academia Sinica	Yen-Ting Liu, Academia Sinica	Cecchetto Claudia, OIST	Christopher Roome, OIST
	Neil Dalphin, OIST	Julian Katzke, OIST	Guanying Li, OIST	Soumen Jana, OIST
	Hseigh-Fu Tsai, OIST	Shinobu Nomura, OIST	Yuki Sugiyama, OIST	Bernd Kuhn, OIST
	Tsunghan Hseigh, OIST			



○ Microscopy Room Tour (11:30 – 13:00, 30<sup>th</sup> Oct.)

- After introduction, 2 group (A and B, C and D) will have microscopy room tour in rotation.

○ Table Discussion (14:00 – 15:30, 30<sup>th</sup> Oct.)

” What if your group member have a collaboration research together?”

- \*Budget is unlimited.

Recommended Procedure

1) Self-introduction including “dream / idea / plan etc. as a researcher”

2) What will be a theme?

For example:

- none-invasive bioimaging (not less-invasive)
- structural biology in a living animal
- real-time 3D imaging of all targeted-molecules with tissue-size field of view
- complete prediction of bioimaging data based on theoretical analysis
- other

3) Discuss the followings:

- Concrete objects/Specific Achievement
- Methods
- Each role
- Remaining problems

4) Summarize discussion results briefly on ppt. file

○ Panel Discussion (15:30 – 16:30, 30<sup>th</sup> Oct.)

- Short presentation, Q&A (total 15 min / group)

## Presentations

### Oral

No.	Author	Affiliation	Title
1	Bernd Kuhn	OIST	Two-photon microscopy: Principles and in vivo applications
2	Feby Wijaya Pratiwi	Academia Sinica	The journey of Mesoporous Silica Nanoparticles (MSN) pH sensing for targeting the lysosome
3	Kunihiro Morishima	Nagoya University	Cosmic-Ray Imaging -discovery of a big void in the Khufu's Pyramid-
4	Yuki Sugiyama	OIST	Live-imaging of collective migration of lens fibre cells
5	Ryosuke Enoki	Hokkaido University	Illuminating Neuronal Circuits Controlling Circadian and Ultradian Rhythms in Mammals
6	Tsunghan Hsieh	OIST	A gene controlling live and death in T helper cells
7	Christopher Roome	OIST	Simultaneous dendritic voltage and calcium mapping with somatic recording from Purkinje neurons in awake mice
8	Weng-Man Chong	Academia Sinica	Superresolution Imaging Reveals Staggered Architecture of the Distal
9	Yosuke Okamura	Tokai University	Fabrication of Fluoropolymer Nanosheets as a Wrapping Mount for High Quality Tissue Imaging

### Poster

No.	Author	Affiliation	Title
1	Sigita Augustinaite	OIST	V1 layer 6 corticothalamic feedback encodes behavioral state by complementary activity of two neuronal populations
2	Chun-Wei Chen	Academia Sinica	An inhibitory role for mitochondrial fusion in Parkin-mediated mitophagy
3	Ai Goto	Hokkaido University	Development of multi-point scanning two-photon microscopy utilizing polarizing optics and its application for intravital imaging
4	Yuhei Goto	National Institute for Basic Biology	Manipulation of fission yeast cell cycle by red/infrared Light-induced Dimerization of PhyB-PIF
5	Hirokazu Ishii	Hokkaido University	Cytoskeletal dynamics for directional transport in the fertilized ascidian eggs
6	Masao Kamimura	Tokyo University of Science	Polymer Conjugated Nanophosphors for Over-1000 nm Near-Infrared Fluorescence Imaging

## Poster

No.	Author	Affiliation	Title
7	Weng Man Chong	Academia Sinica	Superresolution Imaging Reveals Staggered Architecture of the Distal
8	Neil Dalphin	OIST	Simultaneous Voltage and Calcium Imaging of Mouse Barrel Cortex, In Vivo
9	Takahiro Kuchimaru	Jichi Medical University	A multi-bioluminescence reporter system visualizes tumor-stromal interactions during therapeutic treatment of bone metastasis
10	Takafumi Kamada	Hokkaido University	Two-photon excitation spinning disk confocal microscopy utilizing two laser light sources
11	Yutaro Kashiwagi	The University of Tokyo	Structured illumination microscopy-based computational analysis of spine head geometry and its application to live cell imaging
12	Misa Minegishi	Tokyo Institute of Technology	Highly-sensitive in vivo tracking of cancer cells using near-infrared bioluminescence technologies
13	Tsunghan Hsieh	OIST	A gene controlling live and death in T helper cells
14	Julian Katzke	OIST	Newly Arising Opportunities for Evolutionary Studies by Comparative $\mu$ CT-Scanning
15	Ryosuke Kawakami	Ehime University	Application of a highly photostable near-infrared labeling agent in muse brain imaging in vivo
16	Keisuke Nomura	Osaka University	Development of fluorescent probes with m6A-binding protein for detection of RNA methylation
17	Akihico Morozumi	The University of Tokyo	Development of spontaneously blinking fluorophores based on nucleophilic addition of intracellular glutathione for super-resolution imaging
18	Kyohei Okubo	Tokyo University of Science	Sub-100 nm scale nanoarray for single-exosome analysis
19	Karina Nigoghossian	Tokyo University of Science	Theranostic nanosystems based on luminescence of rare-earth doped ceramic nanophosphors
20	Pei-Jou Liu	Academia Sinica	Triggering plasma membrane or melanosome damage by light
21	Shinobu Nomura	OIST	Imaging Protein Kinase A Activity in Somatosensory Cortex of Behaving Mice
22	Takashi Saitou	Ehime University	Spectral-morphological classification of liver fibrosis using multi-photon excitation microscopy and marker-based segmentation
23	Kohei Otomo	Hokkaido University	Improvements of two-photon excitation microscopy for clear visualization of intravital subcellular structures

## Poster

No.	Author	Affiliation	Title
24	Shigekazu Oda	National Institute for Basic Biology	In vivo manipulation of signal transduction using red/infrared light in <i>C. elegans</i>
25	Yen-Ting Liu	Academia Sinica	Exploratory study on 3D super-resolved nuclear pore complexes
26	Chiung Wen Kuo	Academia Sinica	Real-Time Intravital Imaging for Revealing the Rare Cells in the Blood Vessels
27	Shinya Sato	Kyoto University	Single-cell kinase activity measurements from the mouse retina by two-photon ex vivo live imaging.
28	Ryo Tachibana	The University of Tokyo	Non-empirical Design of Spontaneously Blinking Fluorophores for Super-resolution Imaging
29	Masafumi Shimojo	National Institutes for Quantum and Radiological Science and Technology	Genetically encoded reporter for bimodal optical and PET imaging in the mammalian brain.
30	Sota Takanezawa	Ehime University	Development of 2 photon wide-field light sheet microscopy for Medaka
31	Feby Wijaya Pratiwi	Academia Sinica	The journey of Mesoporous Silica Nanoparticles (MSN) pH sensing for targeting the lysosome
32	Christopher Roome	OIST	Simultaneous dendritic voltage and calcium mapping with somatic recording from Purkinje neurons in awake mice
33	Akari Takagi	Kyoto University	Temporal Profile of Notch Signaling Activation during Vertebrate Somitogenesis
34	Masakazu Umezawa	Tokyo University of Science	Real-Time Imaging of Bile Excretion of Nanoparticle Using In Vivo Deep Imaging System with Near-Infrared Fluorescent Probes
35	Taiga Takahashi	Hokkaido University	Application of novel CYTOP nanosheet for in vivo imaging of living mouse brain
36	Hong Zhang	Tokai University	Using nanosheet instead of coverslip for facilitating deep tissue imaging
37	Hsieh-Fu Tsai	OIST	Usiigaci: label-free instance-aware cell segmentation and tracking in phase contrast microscopy using machine learning
38	Shin Yoshizawa	RIKEN RAP	3D Beef Marbling Extraction
39	Kazushi Yamaguchi	Hokkaido University	In vivo two-photon laser ablation within deep regions of living mouse brains

## Other participants

	Name	Affiliation
Attendance only	Claudia Cecchetto	OIST
Attendance only	Jana Soumen	OIST
Observer	Peilin Chen	Academia Sinica
Observer	Takeshi Imamura	Ehime University
Observer	Mako Kamiya	The University of Tokyo
Observer	Ichiro Masai	OIST
Observer	Michiyuki Matsuda	Kyoto University
Observer	Atsushi Miyawaki	RIKEN CBS&RAP
Observer	Tomomi Nemoto	Hokkaido University
Observer	Kohei Soga	Tokyo University of Science
Observer	Hideo Yokota	RIKEN RAP
Administrator	Hiroko Sakurai	RIKEN RAP
Administrator	Mizuki Shimanuki	OIST