



Retreat Awards (300K JPY)

ASHBi Retreat 2022

Online

Online Networking

Fusion Workshop

1/28-29
Day1 9:00-18:15
Day2 9:00-13:15

The graphic features a central title 'ASHBi Retreat 2022' in large orange letters. Surrounding it are various icons: a laptop, a coffee cup, a globe, a DNA helix, a chemical structure, a headset, a magnifying glass, a lightbulb, a knot, a lightning bolt, and a scale. A speech bubble says 'Online' and another says 'Online Networking'. A cloud-shaped callout says 'Retreat Awards (300K JPY)'. A starburst callout says 'Fusion Workshop'. At the bottom right, the dates '1/28-29' are listed with times for Day 1 (9:00-18:15) and Day 2 (9:00-13:15). The background is a yellow and white dotted pattern with dark blue curved lines.

Program

ASHBi Retreat 2022



Program

1. Date & Venue

Date & Time: Friday, 28 January, 9:20–18:40, JST

Saturday, 29 January, 9:00–13:30, JST

Zoom: <https://gtcenter-jp.zoom.us/j/88976588449?pwd=QnEwSGtFcW1ydWpTWk9wcEFoYzZldz09>

Spatial Chat: <https://spatial.chat/s/ASHBiRetreat2022>

Please Access Spatial Chat via Chrome

2. Schedule

Day 1: 4th Workshop on Fusion Research Grant

9:25	Opening	
9:30	1 st Year group #1 – 4 Reona Yamaguchi Harumi Saito Go Okui Yoshihiro Yamanaka	(Talk 15' + Q & A 5')
10:50	Break	
11:10	1 st Year group #5 – 8 TBA Tania Afroj Sofiane Hamidi Shruti Bhagat (Shinichiro Oshima)	(Talk 15' + Q & A 5')
12:30	Lunch break	
13:40 – 14:20	Invited Speaker Hiroshi Kori	The University of Tokyo
	Break	
14:30	2 nd Year groups #1 – 3 Kumiko Yoshioka-Kobayashi Masahiro Nagano Tsutomu Sawai (Cantas Alev)	(Talk 20' + Q & A 10')
16:00	Break	
16:10 – 16:50	Invited Speaker Hironobu Fujiwara	RIKEN BDR
	Break	
17:00	2 nd Year groups #4 – 6 Yukihiro Yabuta Yusuke Imoto Masahiro Nagano	(Talk 20' + Q & A 10')
18:30	Closing	

Day 2: ASHBi Retreat Poster Session

9:00	Opening
9:10	Flash talk 1 (1 min x 16 presenters)
9:30	<u>Poster session 1</u> 16 Posters @ Zoom Breakout room
10:40	Break
10:50	Flash talk 2 (1 min x 15 presenters)
11:10	<u>Poster session 2</u> 15 posters @ Zoom Breakout room
12:20	Lunch and Social @ Spatial Chat
13:20	Closing and award

3. ASHBi Retreat 2022 Social - How to Use Spatial Chat

Spatial Chat: <https://spatial.chat/s/ASHBiRetreat2022>
Date & Time: 12:20 – 13:20 on 29 January

Preparation in advance

- Check your audio device/volume of your PC before entering.
Volume level cannot be adjusted in the Spatial Chat application.
- Access to Spatial Chat via **Chrome**.
Safari, Firefox, and Edge are **NOT recommended** (we had connecting troubles during test)

Connecting to Spatial Chat

- Log in with **your full name** (ie Fumi Komori).
- **Webcam and audio must be ON** upon entering
Your face will show up in a circle as your icon via webcam.



Talking with other people

- **Neighbors with their faces ON** can talk to each other.
You cannot talk to people with just plain initials
- You can **talk to non-neighbors by approaching them** until the face shows up.
You can also double click. the person to jump nearby
- **DON'T use the Megaphone** button. Your voice will be sent to everyone on the floor.

Important announcements (provided via Broadcast)

Organizers will send important announcements via the broadcast. You can hear the broadcast from all floors, wherever you are.

Emergency Contact: 075-753-9882 (ASHBi Office)

The 4th Workshop on ASHBi Fusion Grant

DATE : 2022/1/28

Morning Session (1st year group)

Time	Name	Title
9:25		Opening
9:30	Reona Yamaguchi	Statistical inference of the causality with polarity among brain regions associated with recovery from spinal cord injury
	Harumi Saitou	Functional dissection of primate striatal structure using viral vectors guided by genome informatics
	Go Okui	The research use of fresh postmortem tissues: From a regulatory and ethical perspective
10:50	Yoshihiro Yamanaka	Spatial transcriptome analysis of human axial development in vitro
		Break
11:10	Haruka Higashi	Genome-wide dynamics of oscillatory transcriptional regulation during human in vitro somitogenesis
	Tania Afroj	Reconstruct hematopoiesis using in vivo paired daughter cell assay combined with mathematical integration
	Sofiane Hamidi	Reconstruction and analysis of peri & post-implantation non-human primate development
12:30	Shruti Bhagat	Deciphering regulatory heterogeneity of human hematopoietic stem and progenitor cells

* presentation time: 15-min talk + 5-min Q&A

Afternoon Session (2nd year group)

Time	Name	Title
13:40		Invited Speaker Hiroshi Kori (The University of Tokyo) "The effect of interaction delay on oscillation and synchronization: comparison between theory and segmentation clock system"
14:20		Break
14:30	Kumiko Yoshioka-Kobayashi	Characterization of gene regulatory networks in human and non-human in vitro segmentation clocks
	Masahiro Nagano	Beyond Hi-C: single-molecule sequencing and analysis of multi-way concatemers
	Tsutomu Sawai	Examining Ethics and Governance in Developmental Biology
16:00		Break
16:10		Invited Speaker Hironobu Fujiwara (RIKEN BDR) "Tracing the origin of hair follicle stem cells"
16:50		Break
17:00	Yukihiro Yabuta	Inference of genome-wide DNA demethylation kinetics by dynamic model fitting Research
	Yusuke Imoto	Identification of multi-resolution cell differentiation dynamics from scRNA-seq data via mathematical data analysis and interactive visualization system
	Masahiro Nagano	Deciphering evolutionary differences of germline transposable element dynamics
18:30		Closing

ASHBi Retreat 2022 Poster Presenters list

DATE : 2022/1/29

Poster Session 1 (9:30–10:40) (16 presenters in session 1)

Room	Name	Title
A	Naoya Toriu (Yanagita G)	Kidney development and disease models in a non-human primate
B	Joonseong Lee (T Yamamoto G)	The effects of RNA secondary structure on translation
C	Shusei Fujioka (Ueno G)	Deciphering human CD4 T cell differentiation by topological data analysis
D	Masataka Nakaya (Tsukiyama G)	Generation of transgenic cynomolgus monkeys using piggyBac transposition
E	Ken Mizuta (Saitou G)	Ex vivo reconstitution of fetal oocyte development in humans and monkeys
F	Tomonori Hirano (Ogawa G)	genetic analysis of normal pancreas
G	Shruti Bhagat (Murakawa G)	Elucidating the principles of gene regulation, evolution, and disease in the non-coding human genome
H	Ryo Sasaki (Isa G)	Mesofrontal pathway for risk-return decision making
I	Toshiaki Yachimura (Hiraoka G)	A novel single-cell trajectory inference framework by Gaussian mixture models and optimal transport theory
J	Takafumi Ichikawa (Hiiragi G)	Tissue pattern emerging in the epiblast through cellular symmetry breaking and ordering
K	Tsutomu Sawai (Fujita G)	Mappings the social issues of human brain organoid research and application
L	Masanaga Muto (Ema G)	Exploring Developmental Potential of Inner Cell Mass in Cynomolgus Monkeys
M	Rio Tsutsumi (Eiraku G)	In vitro limb morphogenesis based on proximal-distal positional information
N	Xun Chen (Bourque G)	Transposable elements contribute to the epigenetic changes in the human response to influenza infection
O	Satoko Amemori (Amemori G)	The ventromedial prefrontal cortex and limbic network of anxiety in primates
P	Sofiane Hamidi (Alev G)	Towards reconstituting primate embryo implantation in a dish

16 breakout rooms

Poster Session 2 (11:10–12:20)
(15 presenters in session 2)

Room Name	Title	
A	Shigenori Yamamoto (Yanagita G)	Visualization of ATP dynamics in the whole kidney using the kidney slice culture system
B	Kazunori Sunadome (T Yamamoto G)	Modified HyBISS (hybridization-based in situ sequencing) and probabilistic cell typing in situ
C	Shinichiro Oshima (R Yamamoto G)	Nardilysin is required for hematopoietic stem cell maintenance
D		
E	Baku Nakakita (Saitou G)	Dynamic transcriptional landscape of in-vivo and in-vitro folliculogenesis among mouse, monkey, and human
F	Masahiro Nagano (Saitou G)	Nucleome programming for the foundation of totipotency in mammalian germline development
G	Yoshikage Inoue (Ogawa G)	Molecular classification and risk stratification of colorectal cancer
H	Raku Son (Murakawa G)	Novel long non-coding RNA biomarker exploration by transcriptome analysis
I	Chih-Yang Chen (Isa G)	The ventral part of area 6DR in common marmoset exhibits saccade-related activity
J	Killian Francis Meehan (Hiraoka G)	Chromosome Structural Analysis by Topologically Learned Embeddings
K	Go Okui (Fujita G)	An ethical perspective on the research use of fresh postmortem tissues from pathological autopsies
L	Eiichi Okamura (Ema G)	Establishment of efficient and high-quality BAC transgenic technology providing precise long-range gene regulation
M	Zhe Wang (Eiraku G)	Recapitulation of human early embryonic development in artificial micro-environments
N	Qinwei Zhuang (Bourque G)	Sex Chromosomes and Sex Phenotype Contribute to Biased DNA Methylation in Mouse Liver and Brain
O	Jungmin Oh (Amemori G)	A motivation switch in the brain? Silencing the pathway of the ventral striatum-ventral pallidum increases motivational states under potential aversive situation in nonhuman primates
P	Yoshihiro Yamanaka (Alev G)	Axioloids: A novel model to recapitulate human axial development and congenital diseases