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### 東北大学加齢医学研究所



## プログラム

# 158<sup>th</sup> IDAC Biannual Meeting Program



日時:令和4年7月15日(金曜日)13:00~ July 15, 2022,13:00~ at Web conference

共催:東北大学加齢医学研究所

Institute of Development, Aging and Cancer, Tohoku University 東北大学加齢医学研究所研究会同窓会

Society of Institute of Development, Aging and Cancer, Tohoku University

#### 13:05-14:05 Session 1 Presentations 1-4

#### Chairs: Ken Matsumoto, Chikara Sakai

# 1. Perceived social isolation is correlated with brain structure and cognitive trajectory in Alzheimer's disease

Ye Zhang,<sup>1</sup> Yasuko Tatewaki,<sup>1, 2</sup> Yingxu Liu,<sup>1</sup> Naoki Tomita,<sup>1, 2</sup> Tatsuo Nagasaka,<sup>3</sup> Michiho Muranaka,<sup>1, 2,</sup> Shuzo Yamamoto,<sup>1, 2</sup> Yumi Takano,<sup>1, 2</sup> Taizen Nakase,<sup>1, 2</sup> Tatsushi Mutoh,<sup>1, 2, 4\*</sup> and Yasuyuki Taki1, <sup>2, 5</sup>

- <sup>1</sup> Department of Aging Research and Geriatric Medicine, Institute of Development, Aging and Cancer, Tohoku University, Aoba-ku, Sendai 980-8575, Japan
- <sup>2</sup> Department of Geriatric Medicine and Neuroimaging, Tohoku University Hospital, Aoba-ku, Sendai 980-8575, Japan
- <sup>3</sup> Division of Radiology, Tohoku University Hospital, Sendai 980-8574, Japan
- <sup>4</sup> Department of Neurosurgery, Research Institute for Brain and Blood Vessels-AKITA, Akita 010-0874, Japan
- <sup>5</sup> Smart-Aging Research Center, Tohoku University, Aoba-ku, Sendai 980-8575, Japan

# 2 LFA-1 integrin is involved in generation of immuno-suppressive cancer microenvironment through T cell trogocytosis regulation

Koyu Ito, Kouetsu Ogasawara

Department of Immunobiology, Institute of Development, Aging, and Cancer, Tohoku University

# $\ensuremath{\mathtt{3}}$ , Aurora A promotes centrosome maturation through the ubiquitination of OLA1

Xingming Li<sup>1,2</sup>, Zhenzhou Fang<sup>1</sup>, Yuki Yoshino<sup>1,2</sup>, Hinari Murooka<sup>1,2</sup>, Chikashi Ishioka<sup>3</sup>, Takahiro Mori<sup>3,4</sup>, and Natsuko Chiba<sup>1,2</sup>

- <sup>1</sup> Department of Cancer Biology, Institute of Development, Aging and Cancer (IDAC), Tohoku University
- <sup>2</sup> Laboratory of Cancer Biology, Graduate School of Life Sciences, Tohoku University
- <sup>3</sup> Department of Clinical Oncology, Tohoku University Graduate School of

Medicine

<sup>4</sup> Genome Medical Science Project, National Center for Global Health and Medicine

#### 4 Neural Correlates of Learning Semantic-Based Rules: an fMRI study

Diego Elisandro Dardon, Hyeongjeong Jeong, Haining Cui, Ryo Ishibashi, Motoaki Sugiura

Department of Human Brain Science, Institute of Development, Aging and Cancer, Tohoku University

### 14:05-14:15 **break**

14:15-15:00 Session 2 Presentations 5-7

Chairs: Hidekazu Shirota, Shotaro Miyamoto

5 . An attempt to analyze pulse wave velocity under using left ventricular assist device by non-contact image photoplethysmography analysis

Shinichiro Ito<sup>1</sup>, Yasuyuki Shiraishi<sup>1</sup>, Akihiro Yamada<sup>1</sup>, Aoi Fukaya<sup>1,2</sup>, Kotaro Nakano<sup>1</sup>, Yusuke Noda<sup>1</sup>, Norihiro Sugita<sup>3</sup>, Makoto Yohizawa<sup>4</sup>, Akira Tanaka<sup>5</sup>, Kenji Yamazaki<sup>6</sup>, Tomoyuki Yambe<sup>1</sup>

- <sup>1</sup> Department of Pre-Clinical Evaluation, Pre-Clinical Research Center, Institute of Development, Aging and Cancer, Tohoku University
- <sup>2</sup> Tohoku Bunka Gakuen University
- <sup>3</sup> Graduate School of Engineering, Tohoku University
- <sup>4</sup> Head Office Enterprise Partnerships, Tohoku University
- <sup>5</sup> Graduate School of Symbiotic Systems Science and Technology, Fukushima University
- <sup>6</sup> Advanced Medical Research Institute, Hokkaido Circulation Hospital

# 6. Development of a circulatory model for evaluation of right ventricular hemodynamics during V-V ECMO

Yusuke Noda<sup>1</sup>, Yasuyuki Shiraishi<sup>2</sup>, Aoi Fukaya<sup>2</sup>, Kotaro Nakano<sup>1,3</sup>, Genta Sahara<sup>1,2</sup>, Akihiro Yamada<sup>2</sup>, Tomoyuki Yambe<sup>2</sup>

- <sup>1</sup> Department of Medical Engineering and Cardiology, Tohoku University
- <sup>2</sup> Preclinical Research Center, Institute of Development, Aging and Cancer,

Tohoku University

<sup>3</sup> Department of Clinical Engineering, Tohoku University Hospital

# 7. Generation and characterization of novel trans-mitochondrial mice carrying a pathogenic mtDNA mutation

Haruna Tani<sup>1</sup>, Kaori Ishikawa<sup>2</sup>, Fan-Yan Wei<sup>1</sup>, Kazuto Nakada<sup>2</sup>

- <sup>1</sup> Department of Modomics Biology and Medicine, Institute of Development, Aging and Cancer, Tohoku University
- <sup>2</sup> Faculty of Life and Environmental Sciences, University of Tsukuba

### 15:00-15:10 **break**

15:10-15:55 Session 3 Presentations 8-10

Chairs: Kenji Iemura, Shinpei Kawaoka

8. Cognitive training breaks out of loneliness in healthy older adults.

Rui Nouchi¹ and Ryuta Kawashima ²

- <sup>1</sup> Department of cognitive health science, Institute of Development, Aging and Cancer, Tohoku University
- <sup>2</sup> Department of functional brain imaging, Institute of Development, Aging and Cancer, Tohoku University
- 9 Common and distinct neural bases of multiple positive emotion regulation strategies: A functional magnetic resonance imaging study

Masayuki Tsujimoto<sup>1</sup>, Toshiki Saito<sup>2</sup>, Yutaka Matsuzaki<sup>3</sup>, Risako Kojima<sup>1</sup>, Ryuta Kawashima<sup>1,3</sup>

- <sup>1</sup> Department of Functional Brain Imaging, Institute of Development, Aging and Cancer (IDAC), Tohoku University
- <sup>2</sup> School of Fundamental Science and Engineering, Waseda University
- <sup>3</sup> Department of Developmental Cognitive Neuroscience, Institute of Development, Aging and Cancer (IDAC), Tohoku University
- 1 0 Visualization of peripheral micro-vasculature: A novel imaging modality using high-frequency ultrasound

Anam Bhatti<sup>1</sup>, Takuro Ishii<sup>2</sup>, Naoya Kanno<sup>1</sup>, Yoshifumi Saijo<sup>1,3</sup>

- <sup>1</sup> Graduate School of Biomedical Engineering, Tohoku University
- <sup>2</sup> Frontier Research Institute for Interdisciplinary Sciences, Tohoku University
- <sup>3</sup> Department of Biomedical Measurement, Institute of Development, Aging and Cancer, Tohoku University

#### 一般口演について

発表時間12分, 討論3分とします。時間厳守にてお願いします。 座長は集談会コンテスト審査員が行ないます。

### 15:55-16:00 Closing remarks Dr. Hozumi Motohashi

集談会終了後、研究会同窓会総会を開催いたします。 園遊会は中止です。

#### 東北大学加齢医学研究所集談会に関するガイドライン

#### 【趣旨】

定期開催される東北大学加齢医学研究所集談会(以下、「集談会」という)において、加齢 医学研究所同窓会メンバー(以下、メンバーという。)向けに、所属研究者等の日頃の成果を 発表いただいておりますが、その中にはメンバー向けのため、公知となっていない研究デ ータ等を発表いただける場合もございます。

ご存じのとおり、研究者のマナーとしまして、不用意に口外しないことを前提に発表いただいておりますが、昨今、ウェブ等で開催することもあり、URLをご存じの方は、メンバー以外でもご参会いただけるため、発表者に不利益が生じないよう、守秘義務を講じて開催いただきますようお願いいたします。

注意事項「本集談会を聴講するにあたり、同会において提供又は開示され、若しくは同 発表会を通じて知得した一切の情報について秘密に保持すること。

但し、聴講を受ける前に公知であったこと又は自ら正当に保有していたことを証明できる情報、若しくは聴講を受けた後、貴学が公開したことを証明できる情報についてはこの限りではないものとします。」