

第 47 回 日本基礎老化学会大会
プログラム

The 47th Annual Meeting of
the Japan Society for Biomedical
Gerontology

PROGRAM

6月15日(土) / 15 June (Sat)

《大講義室》

9:00~9:10 開会の辞

福井 浩二 (第47回日本基礎老化学会大会長, 芝浦工業大学)

9:10~10:10 一般口頭発表 I

座長: 水之江 雄平 (東京理科大学)

小林 正樹 (お茶の水女子大学)

- I-01/ Y Mixed antioxidant supplement improved the coordination ability of aged mice**
Akari Nakamura (Shibaura Institute of Technology)
- I-02/ Y・S Effects of Accumulated PARIS on Aging-related Diseases**
Hiroyuki Fukai (Laboratory of Molecular Pathology and Metabolic Disease, Faculty of Pharmaceutical Science, Tokyo University of Science)
- I-03/ Y・S Effect of dietary protein ratio on lipid metabolism in the mouse liver**
Jialin Chen (Molecular Regulation of Aging, Tokyo Metropolitan Institute for Geriatrics and Gerontology, Tokyo Biotechnology Technical School)
- I-04/ Y・S Systemic and focal effects of the mitochondrial stress-induced mitokine GDF15 in the adipose tissue**
Tomoyoshi Fukuoh (Laboratory of Molecular Pathology and Metabolic Disease, Faculty of Pharmaceutical Science, Tokyo University of Science)
- I-05/ Y・S Investigation of renal injury models with different concentrations of adenine**
Shunki Otomo (Graduate School of System Engineering and Science, Shibaura Institute of Technology)

10:10~10:15 休憩

10:15~11:15 一般口頭発表 II

座長: 内田 さえ (東京都健康長寿医療センター研究所)

嶋本 顕 (山口東京理科大学)

- II-01/ Y・S MIPEP regulates adipocyte differentiation by maintaining the quantity and quality of mitochondria**
Mamiko Ishimatsu (Department of Pharmaceutical Science, Graduate School of Pharmaceutical, Tokyo University of Science)
- II-02/ S A novel type of astrocytes expressing Olig2 in mouse dentate gyrus and their response to intermittent hypoxia**
Shoichiro Omura (Department of Histology and Neuroanatomy, Tokyo Medical University)
- II-03/ Y・S System xc⁻/xCT in microglia is a regulator of neuropsychiatric disorder in vitamin E deficient mice**
Hidetoshi Nagamine (Tottori University)
- II-04/ S Co-expression of POMC and Prox1 delineates newly generated POMC neurons in the hypothalamus through lifetime**
Rina Ogawa (Department of Histology and Neuroanatomy, Tokyo Medical University)

II-05/ S **Cerebral blood flow responses to trigeminal olfactory stimulation and its nicotinic cholinergic regulation**

Daichi Morihara (Tokyo Metropolitan Institute for Geriatrics and Gerontology, Tokyo University of Agriculture and Technology)

11:15~11:30 移動

《501 教室》

11:30~12:15 スポンサーセミナー (TIMA Tokyo 株式会社)

「老化治療の最前線」

講師：犬房 春彦 (岐阜大学科学研究基盤センター 共同研究講座 抗酸化研究部門 特任教授)

座長：福井 浩二 (芝浦工業大学)

《ホワイエ》

12:15~13:45 ポスター討議 (タイトルについては P8~9 に掲載)

《大講義室》

13:45~14:30 企業シンポジウム

座長：中川 久子 (雪印メグミルク株式会社)

柳井 修一 (東京都健康長寿医療センター研究所)

1. **The effectiveness of Lactic Acid Bacteria for “Health Aging”**

Hisako Nakagawa (MEGMILK SNOW BRAND Co., Ltd)

2. **Electron Spin Resonance (ESR), Instrument for detecting radicals**

Yumi Nakai (JEOL Ltd)

3. **Rare sugar ~Potential for healthy aging~**

Akane Kanasaki (Matsutani Chemical Industry Co., Ltd)

14:30~14:35 休憩

14:35~15:35 日本組織培養学会とのジョイントシンポジウム

座長：片岡 健 (岡山理科大学)

中村 庸輝 (広島大学)

1. **Innovative Gravity-Driven and Electric-Assisted Microfluidic Culture System for Human Induced Pluripotent Stem Cell Assays**

Kiyoshi Ohnuma (Nagaoka University of Technology)

2. **Development of cell self-aggregation technique-based tissue engineering.**

-Challenges for applications in regenerative medicine and 3D culture models-

Ryosuke Iwai (Okayama University of Science)

3. **Acute brain slice preparations for approaching cellular and molecular mechanisms of higher brain function**

Sho Kakizawa (Tokyo Metropolitan Institute for Geriatrics and Gerontology)

4. **Microglial xCT is a novel therapeutic target for Alzheimer’ s disease/ Y**

Yugo Kato (Tottori University)

15:35~15:45 休憩

15:45～16:25 医工連携シンポジウム

座長：福井 浩二（芝浦工業大学）

特別講演 I：

「関節運動の絶対的な強さから瞬間的な強さへのシフト —高齢者の姿勢制御能力向上に向けた取り組み—」

講師：赤木 亮太（芝浦工業大学）

特別講演 II：

「赤血球が流れから受ける物理刺激・機械的損傷・膜酸化現象・Aging との関連性」

講師：渡邊 宣夫（芝浦工業大学）

16:25～16:30 休憩

16:30～18:10 日韓合同シンポジウム/Japan-Korea Joint Symposium

座長/Chairs：柿澤 昌（東京都健康長寿医療センター研究所）
Cheol-Koo Lee（Korea University）

1. **Genomic approach to identify the role of DNA repair in longevity using genomic databases**
Young Rok Seo (Department of Life Science, Institute of Environmental Medicine, Dongguk University)
2. **Adverse Effects of Environmental Pollutants on Neural Stem Cells and Adult Hippocampal Neurogenesis**
Jaewon Lee (Department of Pharmacy, College of Pharmacy, Pusan National University)
3. **Suppression of neutrophil mitigates acute aortic dissection in H2-inhalation therapy**
Masumi Iketani (Biol. Process Aging, TMIG)
4. **Lifespan extender rapamycin and TOR genetics in budding yeast cells**
Cheol-Koo Lee (Korea University, Seoul)
5. **Effects of resistance training on fibro-adipogenic progenitors in aging skeletal muscle**
Yung-Li Hung (Japan Society for the Promotion of Sciences, Juntendo University)
6. **The aging process is an evolutionary phenomenon from the tumor's perspective**
Tae Jun Park (Department of Biochemistry and Molecular Biology, Ajou University School of Medicine)
7. **Changes of nucleocytoplasmic trafficking in cellular senescence**
Young-Sam Lee (Department of New Biology, DGIST)
8. **Changes in mitochondrial fusion and fission-related gene and protein expression in AD transgenic mice/ Y・S**
Anna Seino (Times Graduate School of System Engineering and Science, Shibaura Institute of Technology)

《豊洲カフェテリア：交流棟 3F》

18:30～20:30 情報交流会/Banquet

6月16日(日) / 16 June (Sun)

《大講義室》

9:00~10:00 一般口頭発表Ⅲ

座長: 丸山 光夫 (国立長寿医療研究センター)

清水 孝彦 (国立長寿医療研究センター)

Ⅲ-01/ S **HIF-1 α activation by fatty acid bound to albumin induces cell proliferation and senescence in renal proximal tubular epithelial cells**

Mio Narita (Graduate School of Medical Science, Kitasato University)

Ⅲ-02/ Y **Role of plasma membrane phospholipid in cellular senescence**

Kaori Kanemaru (Department of Applied Biological Science, Faculty of Science and Technology, Tokyo University of Science)

Ⅲ-03/ Y・S **DNA damage induction by exosomes secreted from senescent cells**

Yukihiro Ikegaki (Department Biology, Graduate School of Science)

Ⅲ-04/ Y **The Impact of senescent cells on the process of lung regeneration: possible involvement of a nuclear receptor signaling**

Mikako Hirose (Molecular and Cellular Aging, Tokyo Metropolitan Institute for Geriatrics and Gerontology)

Ⅲ-05/ S **Molecular basis of cellular senescence triggered by CDK inhibition**

Yuto Matsuo (Tokyo University of Science)

10:15~10:20 休憩

10:05~10:55 一般口頭発表Ⅳ

座長: 三浦 ゆり (東京都健康長寿医療センター研究所)

木村 展之 (岡山理科大学)

Ⅳ-01/ Y **Comprehensive analysis of age-related changes in transcriptome diversity by single cell RNA-seq data analysis**

Daigo Okada (Center for Genomic Medicine, Graduate School of Medicine, Kyoto University)

Ⅳ-02/ Y・S **Lysine Specific Demethylase 1 (LSD1) suppresses cellular senescence by epigenetically regulating Sirtuin-4 in a riboflavin uptake-dependent manner**

Taiichi Osumi (Department of Biology, Graduate School of Science, Kobe University)

Ⅳ-03/ Y・S **Effect of vitamin C deficiency on age-associated genes in mouse liver**

Yukari Mitsumaru (Molecular Regulation of Aging, Tokyo Metropolitan Institute for Geriatrics and Gerontology, Department of Systems Engineering and Science, Shibaura Institute of Technology)

Ⅳ-04/ Y・S **Effects of vitamin C on epigenetic modifications in C2C12 cells**

Tatsuki Minowa (Molecular Regulation of Aging, Tokyo Metropolitan Institute for Geriatrics and Gerontology, Department of Biological Sciences, Tokyo Metropolitan University)

10:55~11:00 休憩

11:00~12:15 一般口頭発表V

座長: 町田 修一 (順天堂大学)
小野 悠介 (熊本大学)

- V-01/ Y・S **The impairment of chronic oxidative stress-induced autophagy causes sarcopenia with individual atrophy in mice**
Rikuto Toda (Department of Applied Physics and Chemistry, School of Engineering, Tokai University)
- V-02/ Y **Hox based positional identities influence myogenesis in adult skeletal muscle**
Ryosuke Okino (Muscle Biology Laboratory, Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- V-03/ S **Effects of aging and sex on ribosome biogenesis in the skeletal muscle**
Shota Fusen (Graduate School of Health and Sports Science, Juntendo University)
- V-04/ Y **Analysis of aged mice-specific abnormal muscle fibers reveals new insights into molecular mechanisms of sarcopenia**
Naoki Ito (Brain-Skeletal Muscle Connection in Aging Project Team, Geroscience Research Center, National Center for Geriatrics and Gerontology)
- V-05/ Y・S **Effects of AGEs on cellular senescence in C2C12 skeletal muscle cells**
Ryota Iyama (Graduate School of Human and Environmental Studies, Kyoto University)

12:15~12:30 移動

《501 教室》

12:30~13:15 スポンサーセミナー (株式会社タケナカ)

「産学連携における室戸海洋深層水の利用促進に向けた取り組み」

講師: 福井浩二 (芝浦工業大学 システム理工学部 生命科学科 分子細胞生物学研究室 教授)
座長: 加藤 優吾 (鳥取大学)

13:15~13:20 休憩

13:20~14:35 一般口頭発表VI

座長: 大澤 郁朗 (東京都健康長寿医療センター研究所)
石井 恭正 (東海大学)

- VI-01/ Y・S **Hydrogen rich water-induced thinning of mucus layer with changes of bacterial flora in the small intestine**
Yui Ueta (Biological Process Aging, Tokyo Metropolitan Institute for Geriatrics and Gerontology, Graduate School Life Science, Toyo University)
- VI-02/ Y・S **Enhancement effect of exercise training in mice treated with deep-sea water extract-added water-treated mice**
Nagisa Tomioka (Graduate School of System Engineering and Science, Shibaura Institute of Technology)
- VI-03/ Y **Effects of glucosamine on human colonic microbiota in an in vitro model**
Tomoya Shintani (Kobe University)

- VI-04/ Y・S **The Effects of Tocotrienols on Mice Pre-Fed on a High-Fat Diet**
Shuntaro Richard Kashiwaya (Graduate School of System Engineering and Science, Shibaura Institute of Technology)
- VI-05/ Y・S **The effects of royal jelly on stem cell aging**
Yukie Kande (Shiga University of Medical Science)
- VI-06/ Y **Senomorphic effect of royal jelly in epidermal keratinocyte**
Yukie Nakagawa (Yamada Bee Company, Inc.)

14:35～14:40 休憩

14:40～15:00 特別企画

「An overview: the Past, Present, and Future of Aging Research” in Korean aging meeting」

講師: Yu Byung Pal (University of Texas Health Science Center)

座長: 樋上 賀一 (東京理科大学)

15:00～15:45 教育講演

「若い研究者たちへ 一私の研究の黒歴史を話すよー」

講師: 遠藤 昌吾 (東京都健康長寿医療センター研究所 研究部長)

座長: 石神 昭人 (東京都健康長寿医療センター研究所)

15:45～16:00 授賞式

16:00～16:05 理事長挨拶

石神 昭人 (日本基礎老化学会 理事長, 東京都健康長寿医療センター研究所 副所長)

16:05～16:10 次回大会長挨拶

堀田 晴美 (東京都健康長寿医療センター研究所)

16:10～16:15 閉会の辞

福井 浩二 (第47回日本基礎老化学会 大会長, 芝浦工業大学)

6月15日(土) 12:15~13:30 / 15 (Sat) June 12:15~13:30

《ホワイトエ》 ポスター発表会場

- P-1. Age-related changes in the muscle characteristics of forelimb and hindlimb of senescence accelerated mouse P8 and R1 strains**
Keiko Odera (Department of Biochemistry, Faculty of Pharmaceutical Sciences, Toho University)
- P-2. Age-related changes of Tau in cat brain**
Nobuyuki Kimura (Department of Veterinary Associated Science, Faculty of Veterinary Medicine, Okayama University of Science (OUS))
- P-3. Renal function in aged C57BL/6J mice. Age-related apolipoprotein A-II amyloid deposition impaired the function independently of kidney aging**
Hiroki Miyahara (Shinshu University)
- P-4. Assessment of chronological aging and longevity intervention in healthy dogs**
Takashi Ito (RIKEN CSRS)
- P-5. Why do mice fed egg only diet live healthy?**
Nishio Naomi (Department of school health, Faculty of Education, Saitama University)
- P-6. Role of hippocampal microglia in anxiodepressive-like behaviors of aged mice**
Yoki Nakamura (Department of Pharmacology, Hiroshima University)
- P-7. Regular voluntary exercise increases NAD⁺ levels and cognitive function in aged mice**
Jimmy Kim (Department of Physiology, Graduate School of Health and Sports Science, Juntendo University)
- P-8. Muscle-Derived Seno-Suppressor: Unraveling the Novel Link to Exercise Therapy**
Hiromichi Tsushima (Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- P-9. Development of a fluorescent GABA sensor for drug discovery**
Kenji Takikawa (Tokyo Metropolitan Institute of Gerontology)
- P-10. Characterization of senescent cells derived from human fetal fibroblasts with defective oxidative phosphorylation**
Yasunori Fujita (Biological Process of Aging, Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- P-11. Contribution of sympathetic nerve activity on skeletal muscle contractility in young and aged rats**
Harumi Hotta (Department of Autonomic Neuroscience, Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- P-12. Effect of a traditional Japanese herbal medicine, Ninjin'yoeito, on static and dynamic changes in cerebral cortical arteriolar diameters**
Nobuhiro Watanabe (Department of Autonomic Neuroscience, Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- P-13. Age-related impacts of the defective programmed cell death pathway on longevity in *C. elegans***
Sumino Yanase (Daito Bunka University School of Sports & Health Science)
- P-14. Application of senescent cell removal model mice (tdTomato/human HBEGF knock-in mice) as a tool for aging research**
Mitsuo Maruyama (National Center for Geriatrics and Gerontology, Nagoya University Graduate School of Medicine)
- P-15. Diversity of SASP factors and their physiological roles in cellular senescence process**
Yoichiro Kawabe (National Center for Geriatrics and Gerontology)
- P-16. The relationship between ROS-induced neurite degeneration, disruption of intracellular Ca²⁺ homeostasis and mitochondrial dynamics**
Koji Fukui (Shibaura Institute of Technology)

- P-17. Milk derived sialylglycopeptide concentration induce BDNF production in SH-SY5Y neuroblastoma cells.**
Hisako Nakagawa (Milk Science Research Institute, MEGMILK SNOW BRAND Co. Ltd.)
- P-18. Inhibitory effect of H₂-inhalation on thrombolytic tPA-induced hemorrhagic transformation of cerebral infarction**
Kennosuke Sato (Biological Process Aging, Tokyo Metropolitan Institute for Geriatrics and Gerontology, Life Science, Toyo University)
- P-19. Induction of tissue-specific premature stem cell aging promotes senescence-like deterioration in remote organs**
Hayato Kaneda (Shiga University of Medical Science)
- P-20. Effect of basal forebrain stimulation on extracellular acetylcholine release and regional blood flow in the piriform cortex**
Jura Moriya (Department of Autonomic Neuroscience, Tokyo Metropolitan Institute for Geriatrics and Gerontology, Tokyo University of Agriculture and Technology)
- P-21. Analysis of Selective mRNA Splicing in Adipose tissue following Caloric Restriction**
Yuhei Mizunoe (Laboratory of Molecular Pathology and Metabolic Disease, Faculty of Pharmaceutical Science, Tokyo University of Science)
- P-22. MMP-2 regulation improves age-related skin pathologies caused by oxidative stress**
Shuichi Shibuya (Aging Stress Response Research Project Team, National Center for Geriatrics and Gerontology)
- P-23. Study of skeletal muscle aging using human iPS cells**
Makoto Shimizu (Graduate School of Humanities and Sciences, Ochanomizu University, Graduate School of Agricultural Sciences, The University of Tokyo)
- P-24. Assessment of physical and cognitive decline in aging mouse model**
Shuichi Yanai (Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- P-25. Age-associated changes in the amount of nucleotide sugars in mouse tissues**
Rieko Imae (Molecular Glycobiology, Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- P-26. Age-related changes in the N-glycan expression of mouse lung**
Keiko Akasaka-Manyu (Molecular Glycobiology, Research Team for Mechanism of Aging, Tokyo Metropolitan Institute of Gerontology)
- P-27. Change of fucosylated N-glycans in plasma proteins from semi-supercentenarians**
Hiroki Tsumoto (Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- P-28. A transcriptomic atlas of the adult mouse skeletal muscle and satellite cells: toward understanding age-related sarcopenia**
Yuuki Gouda (Muscle Biology Laboratory, Tokyo Metropolitan Institute for Geriatrics and Gerontology)
- P-29. Approaches for Identifying of Active Substances in Hypochlorous Acid-Based Disinfectants: Application of Absorption Spectrophotometry and Iodometry**
Yuta Okada (Graduate School of System Engineering and Science, Shibaura Institute of Technology)
- P-30. The comparison of dissolved components, effective chlorine concentration and free chlorine concentration between electrolyzed and non-electrolyzed hypochlorous acid water**
Kenta Sugiyama (Graduate School of System Engineering and Science, Shibaura Institute of Technology)
- P-31. Analysis of sodium chlorite and acidified sodium chlorite by various measurement methods**
Ayuta Kishimoto (Graduate School of Functional Control Systems, Shibaura Institute of Technology)