

The 2021 Spring Meeting of Japan Poultry Science Association

March 27, 2021

Online

Room1

(Presentation 7min.
Discussion 3min.)

Morning Session

(Genetics, Breeding, Reproduction, Physiology)

- I - 1 Population Genetic Structure and Contribution of Philippine Chickens to the Pacific Chicken Diversity Inferred from Mitochondrial DNA 9:00- 9:10
Cyrill John P. Godinez^{1,2}, Peter June D. Dadios³, Dinah M. Espina², Megumi Matsunaga¹, Masahide Nishibori^{1,2}
(¹Grad. Sch. of Integrated Sci. for Life, Hiroshima Univ., ²College of Agri. and Food Sci., Visayas State Univ., Philippines, ³College of Aquatic and Applied Life Sci., Southern Leyte State Univ., Philippines)
- I - 2 Genetic diversity and phylogenetic analysis of Myanmar indigenous chickens using complete mitochondrial D-loop sequence 9:12- 9:22
○Su Lai Yee Mon¹, Moe Lwin², Aye Aye Maw³, Lat Lat Htun³, Saw Bawm³, Kotaro Kawabe⁴, Yasuhiko Wada^{1,5}, Shin Okamoto¹, Takeshi Shimogiri¹
(¹UGSAS, Kagoshima Univ., Japan, ²Livestock breeding and Veterinary Dept., Yangon, Myanmar, ³Univ. of Veterinary Sci., Yezin, Nay Pyi Taw, Myanmar, ⁴Education Ctr., Kagoshima Univ., Japan, ⁵Fac. of Agri., Saga Univ., Japan)
- I - 3 Consideration of genetic relationship between Thai native chickens and Japanese native chickens using GRAS-Di. 9:24- 9:34
○Yuki Nishiyama^{1,2}, Komei Otsuka², Shin Okamoto¹, Pattanapong Thadtha³, Yoshie Goto⁴, Ken-ichi Yamanaka^{1,2}, Yasuhiko Wada^{1,2}
(¹Kagoshima Univ., ²Saga Univ., ³Rajamangala Univ., ⁴Oita Agr. Research Ctr.)
- I - 4 Breed and sex differences on tame behavior toward humans in chickens 9:36- 9:46
○Naoki Toyoda, Ryoko Ono and Tatsuhiko Goto (Obihiro Univ.)
- I - 5 Effects on strain and sex in tame behavior using an cross between TosaJidori and DarumaChabo. 9:48- 9:58
○Ryoko Ono, Haruka Miyachi, Momoka Watanabe, Masaki Shinriki, Naoki Toyoda and Tatsuhiko Goto (Obihiro Univ.)
- Break(10min.) 9:58-10:08

- I - 6 Investigation of cryoprotective agent concentration in cryopreservation and week age of semen collection 10:08-10:18
 ○Takashi Ijichi, Makiko Odaka, Risa Tokunaga and Fukuhara Eriko
 (Fukuoka Agric. For. Res. Cent.)
- I - 7 Investigation of the Number of Primordial Germ Cells in the Early Embryos of the Ryujin-Jidori Fowl 10:20-10:30
 ○Chihiro Koide¹ · Natsuko Hamai² · Norikazu Hashimoto³ · Masaoki Tsudzuki^{1,2,4} · Yoshiaki Nakamura^{1,2,4}
 (¹Grad. Sch. of Integrated Sci. for Life, Hiroshima Univ., ²Sch. of Applied Biological Sci., Hiroshima Univ., ³Wakayama Pref. Livestock Exp. Stn., ⁴JAB, Hiroshima Univ.)
- I - 8 Analysis of innate immune response in the duck *RIG-I* knocked-in DF-1 cells 10:32-10:42
 ○Kennosuke Ichikawa, Yuzuha Motoe, Ryo Ezaki, Mei Matsuzaki, Hiroyuki Horiuchi (Hiroshima Univ.)
- I - 9 Association between dexamethasone-induced gene expressions and myostatin single nucleotide polymorphism in various skeletal muscles of broiler chicks. 10:44-10:54
 ○Yoshimitsu Ouchi, Gou Danura, Yuuichiro Takumi, Takashi Bungo
 (Hiroshima Univ.)
- Break(10min.) 10:54-11:04
- I -10 Neuropeptide Y modifies a part of diencephalic catecholamine metabolism of chicks depending on feeding status 11:04-11:14
 ○Phuong V. Tran, Yui Tamura, Cuong V. Pham, Mohamed Z. Elhussiny, Guofeng Han, Vishwajit S. Chowdhury and Mitsuhiro Furuse (Kyushu Univ.)
- I -11 Central taurine induces hypothermia through GABA_A receptor in layer chicks 11:16-11:26
 ○Mohamed Z. Elhussiny, Phuong V. Tran, Mitsuhiro Furuse and Vishwajit S. Chowdhury (Kyushu Univ.)
- I -12 Dynamic changes of serum amino acids, serum metabolites and relative organ weight of pigeons during one egg-laying cycle 11:28-11:38
 ○Yu Ren, Xiaotong Li, Guofeng Han, Mingli Wang, Mengxue Xi, Jiakun Shen, Yansen Li and Chunmei Li (Nanjing Agri. Univ., China)
- I -13 Sensitivities to weak and strong acids in chicken oral tissue 11:40-11:50
 ○Saki Ishibashi, Kanaho Asanuma and Fuminori Kawabata (Hirosaki Univ.)
- I -14 Changes in NPW and NPBWR2 expression during development of the late chick embryo and possible physiological role 11:52-12:02
 ○Akari Arima¹, Yui Hikichi¹, Norio Kansaku² and Takeshi Ohkubo¹
 (¹Ibaraki Univ., ²Azabu Univ.)

Break (28min.)	12:02-12:30
General Meeting (60min.)	12:30-13:30
Break (10min.)	13:30-13:40
Award Ceremony (80min.)	13:40-15:00
Break (15min.)	15:00-15:15

Afternoon Session

(Genetics, Breeding, Reproduction)

I -15	QTL Analysis of Innate Fear Responses in F ₂ chicks between Nagoya and White Leghorn Breeds ○Akira Ishikawa ¹ , Marina Sakaguchi ¹ , Atsushi J. Nagano ² and Sae Suzuki ¹ (¹ Nagoya Univ., ² Ryukoku Univ.)	15:15-15:25
I -16	Effect on genotype in yolk amino acid traits using several genotypes of chickens ○Tatsuhiko Goto ¹ , Kenji Nishimura ¹ and Masahiro Takaya ^{1,2} (¹ Obihiro Univ., ² Tokachi Foundation)	15:27-15:37
I -17	Effects of VIP antagonist on VIP-induced PRL release from the chicken embryonic anterior pituitary gland. ○Norio Kansaku ¹ , Takeshi Ohkubo ² , Shin-Ichi Kawakami ³ (¹ Azabu Univ., ² Ibaraki Univ., ³ HiroshimaUniv.)	15:39-15:49
	Break (10min.)	15:49-15:59
I -18	Role of Annexin6 on the process of sperm-egg interaction in Japanese quail Yoshinobu Ichikawa ¹ , Mei Matsuzaki ² , Shusei Mizushima ³ and ○Tomohiro Sasanami ⁴ (¹ Shinshu Univ., ² Hiroshima Univ., ³ Hokkaido Univ., ⁴ Shizuoka Univ.)	15:01-16:11
I -19	Role of the sperm surface glycans in the entry into sperm-storage tubules in Japanese quail ○Mei Matsuzaki ¹ , Shusei Mizushima ² , Noritaka Hirohashi ³ , Hiroyuki Horiuchi ¹ and Tomohiro Sasanami ⁴ (¹ Hiroshima Univ., ² Hokkaido Univ., ³ Shimane Univ., ⁴ Shizuoka Univ.)	16:13-16:23
I -20	Examination of gene transfection for chicken primordial germ cells by electroporation ○Yuki Nakajima and Takahiro Tagami (Inst. of Livestock and Grassland Sci., NARO)	16:25-16:35
I -21	Production of Transgenic Chickens that Express Red Fluorescence ○Takahiro Tagami, Ai Kikuchi and Yuki Nakajima (Inst. of Livestock and Grassland Sci., NARO)	16:37-16:47

The candidates for the Presentation Award of young scientists are the following numbers.

I - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

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Room2

(Presentation 7min.
Discussion 3min.)

Morning Session

(Nutrition, Feeds, Genetics, Breeding, Environment and Hygiene)

- II- 1 Effects of particulate matter exposure on pulmonary microbiota in broilers 9:00- 9:10
○Dan Shen, Kai Huang, Yansen Li and Chunmei Li (Nanjing Agri. Univ., China)
- II- 2 Effects of corn silage on growth and slaughter performance in Sanhua geese 9:12- 9:22
○Meng Wang¹, Shangmin Li^{1,2}, Guofeng Han¹, Yansen Li¹ and Chunmei Li¹
(¹Nanjing Agri. Univ., China, ²Poult. Ins., CAAS, China.)
- II- 3 Effects of IGF-1 knockdown on phosphorylation of Akt and Erk in chicken myotubes 9:24- 9:34
○Tomonori Nakamura, Kazuhisa Honda, Hiroshi Kamisoyama and Takaoki Saneyasu (Kobe Univ.)
- II- 4 Effects of fasting on the expression of insulin-like growth factor binding proteins in the liver and skeletal muscles in chickens 9:36- 9:46
○Haruki Osada, Kazuhisa Honda, Ahmed Kewan, Takaoki Saneyasu, and Hiroshi Kamisoyama
(Grad. Sch. Agr. Sci. Kobe Univ.)
- II- 5 Influence of amino acid Amadori products with physiological concentration on protein synthesis of chicken embryonic myoblasts and myotubes. 9:48- 9:58
○Sachi Hirakawa¹ and Kazumi Kita²
(¹Iwate Univ., ²Iwate Univ.)
- Break (10min.) 9:58-10:08
- II- 6 Effect of heat stress on period growth of Hinai-jidori chickens born in different seasons and safeguards against it 10:08-10:18
○Shiori Fukuda¹, Go Ito^{1,3}, Senetsu Sasaki^{1,4}, Yuki Hakamata² Motoi Kikusato² and Daiki Aoya¹
(¹Akita Pref. Livestock Exp. Stn., ²Tohoku Univ. ³Akita Ogachi Regional Promotion Bureau, ⁴Akita Central Livestock Health Ctr.)

- II- 7 Effects of mixed feeding of feed and water on meat yield and quality in broiler chickens 10:20-10:30
 ○Tomoya Matsunami¹, Kazuhisa Honda², Yuji Taniguchi³, Seiichi Hinomoto³, Satoru Kurogi³, Takaoki Saneyasu², and Hiroshi Kamisoyama²
 (¹Fac. Agric. Kobe Univ., ²Grad. Sch. Agr. Sci. Kobe Univ., ³Nakajima Seisakusho Co., LTD.)
- II- 8 Effects of Supplementation with the Lactic Acid Bacterium Fermented Sweet Potato-Shochu Distillery By-product on Growth Performance and Meat Quality of Broiler Chickens 10:32-10:42
 ○Daichi Sonoda¹, Daichi Ijiri¹, Kenzo Sakaguchi², Hirofumi Kawaji² and Akira Ohtsuka¹ (¹Kagoshima Univ., ²Eidensha Co, Ltd.)
- II- 9 The Effect of Supplementation with Thinned Tankan (*Citrus tankan* Hayata) on Lipid Peroxidation, Drip-loss, and Color in the Pectoralis Major Muscle of Broiler Chickens 10:44-10:54
 ○Kiriko Nakamura¹, Saki Shimamoto², Masashi Yamamoto¹, Kozue Sakao¹, Akira Ohtsuka¹ and Daichi Ijiri¹ (¹Kagoshima Univ., ²Niigata Univ.)
- II-10 Influence of dietary animal protein sources supplemented with or without essential amino acids on plasma concentrations of amino acid-Amadori products in chickens 10:56-11:06
 ○Suzuna Kabamoto¹, Ryosuke Makino², Kazumi Kita³
 (¹ Grad. Sch. of Arts and Sci., Iwate Univ.; ² Fac. of Agri., Ehime Univ.; ³ Fac. of Agri., Iwate Univ.)
- Break (10min.) 11:06-11:16
- II-11 Investigation of Nutritional Factors Inducing Fatty Liver and Analysis of Its Pathogenic Mechanism in Laying Quail 11:16-11:26
 ○Daiki Mori, Gong Shengnan, Misato Kobayashi, Fumihiko Horio, Atsushi Murai (Nagoya Univ., Grad. Sch. Bioagr. Sci.)
- II-12 Breed and feed effects on egg yolk and albumen amino acid traits in chickens. 11:28-11:38
 ○Rina Oguchi¹, Nonoka Kawamura¹, Ryoko Ono¹, Masahiro Takaya^{1,2} and Tatsuhiko Goto¹ (¹Obihiro Univ., ²Tokachi Foundation)
- II-13 Influence of fat rich food waste feeding on poultry egg production 11:40-11:50
 ○Kosuke Suzuki¹, Yuri Sugiyama², Yuri Muratsubaki¹, Yoshitsugu Niwa¹, Mao Saeki¹)
 (¹Nihon Univ., College of Bioresource Sci. • ²Central-Agri. Senior High Sch. of Kanagawa pref.)
- II-14 Effect on rearing system of battery cage and free barn in egg components 11:52-12:02
 ○Nonoka Kawamura¹, Masahiro Takaya^{1,2}, Hideaki Hayashi³, Rina Oguchi¹, Ryoko Ono¹, Tatsuhiko Goto¹ (¹Obihiro Univ • ²Tokachi Foundation • ³Rakuno Univ)

Break (28min.)	12:02-12:30
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Afternoon Session

(Nutrition, Feeds, Physiology, Environment and Hygiene, Processing and Products)

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| II-15 | Morphological observations of ultimobranchial glands on the experimental an induced molt using program in egg-laying hens.
○ ¹ Katsuyoshi Kitajima, ² Kohei Maki, ² Hiromi Nakajima (¹ Tokyo Univ of Agri and Techno, ² Ibaraki Univ) | 15:15-15:25 |
| II-16 | Extended proliferation of chicken Whooper swan derived fibroblasts by expression of cell cycle regulators
○Masafumi Katayama ¹ , Tohru Kiyono ² , Takahiro Eitsuka ³ , Miho Inoue-Murayama ⁴ , Manabu Onuma ¹ , Tomokazu Fukuda ⁵
(¹ Ctr. for Environmental Biology and Ecosystem, National Inst. for Environmental Studies(NIES), ² Exploratory Oncology Research and Clinical Trial Ctr., National Cancer Ctr., ³ Grad. Sch. of Agri. Sci., Tohoku Univ., ⁴ Wildlife Research Ctr. of Kyoto Univ., ⁵ Grad. Sch. of Sci. and Engineering, Iwate Univ.) | 15:27-15:37 |
| II-17 | Effects of slight disruption in intestinal environment on the egg laying and endocrinal function in hens.
○Takahiro Nii, Naoki Isobe, Yukinori Yoshimura
(Grad. Sch. of Integrated Sci. for Life, Hiroshima Univ.) | 15:39-15:49 |
| II-18 | Sensory evaluation of thigh meat of Hinai-jidori chicken by scoring method and Check-All-That-Apply (CATA)
○Daiki Aoya ¹ , Wakana Shindo ¹ , Shiori Fukuda ¹ , Ami Shikano ¹ , Keisuke Sasaki ²
(¹ Akita Pref. Livestock Exp. Stn., ² Inst. of Livestock and Grassland Sci., NARO) | 15:51-16:01 |
| | Break (10min.) | 16:01-16:11 |
| II-19 | L-leucine <i>in ovo</i> administration improves spleen weight and alters serum antioxidative parameters in broiler chickens after chronic heat stress
○Guofeng Han, Yangyang Cui, Dan Shen, Mingyang Li, Yansen Li and Chunmei Li
(Nanjing Agr. Univ., China) | 16:11-16:21 |
| II-20 | Effects of astaxanthin-rich dried cell powder feeding on blood characteristics of laying hens
○Yoshiaki Hayashi ¹ , Jinkun Sun ¹ , Yuki Kawashima ² , Masaki Honda ³
(¹ Grad. Sch. Agric. Meijo Univ., ² ENEOS Corp., ³ Fac. Sci. Tech. Meijo Univ.) | 16:21-16:31 |

- II-21 Effect of intraperitoneal injection of flagellin on behavioral and physiological response in chicks 16:35-16:45
○Tetsuya Tachibana¹, Ryosuke Makino¹ and Mohammad Sakirul Islam Khan²
(¹Fac. of Agric., Ehime Univ., ²Sch. of Med., Ehime Univ.)
- II-22 Age-related changes in the level of α -dicarbonyl compounds in peripheral tissues of the chickens 16:47-16:57
○Ryosuke Makino and Tetsuya Tachibana
(Ehime Univ.)

The candidates for the Presentation Award of young scientists are the following numbers.

II - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14