

**41<sup>TH</sup>**  
**Annual Meeting of**  
**Japanese Avian Endocrinology**

第 41 回 鳥類内分泌研究会東京大会



**December 16-17, 2017**

**Fuchu, Tokyo**

\*表紙の絵は、大室 清さん（府中市の野鳥クラブ）のご厚意によるものです。

## 第41回 日本鳥類内分泌研究会 開催要項

1. 日程 2017年12月16日（土）～12月17日（日）

2. 会場 東京農工大学 農学部 共同獣医学科

〒183-0859 東京都府中市晴見町3-5-8（府中キャンパス）

電話：042-367-5504 URL：<https://www.tuat.ac.jp/>

発表会場：2号館1階 多目的教室

懇親会会場：福利厚生センター内 2階オリザ



3. アクセス

交通案内	JR中央線「国分寺駅」下車、南口2番乗場から「府中駅行バス(明星学苑経由)」約10分「晴見町」バス停下車
	京王線「府中駅」下車、北口バスターミナル2番乗場から「国分寺駅南口行バス(明星学苑経由)」約7分「晴見町」バス停下車
	JR武藏野線「北府中駅」下車、徒歩約12分

## 第41回鳥類内分泌研究会プログラム

(○は演者を示しています)

### 12月16日(土)

12時00分～ 受付

13時20分～ 開会の挨拶

### 若手研究奨励賞応募講演

#### 13時30分～14時30分

(座長：坂田一郎)

##### 演題1 ニホンウズラにおけるAAアミロイド症の病態および伝播性

○村上智亮<sup>1</sup>、中山優美<sup>1</sup>、三好知行<sup>1</sup>、小野歩<sup>1</sup>、鈴木和彦<sup>1</sup>、渡辺元<sup>2</sup>

(<sup>1</sup>東京農工大学獣医毒性学研究室、<sup>2</sup>東京農工大学獣医学研究室)

##### 演題2 ニワトリヒナにおけるPrRP small interfering RNA (siRNA) の脳室内投与実験

○武田未紗<sup>1</sup>、橘哲也<sup>2</sup>、落合雅美<sup>1</sup>、大久保武<sup>1</sup> ((<sup>1</sup>茨城大学院・農、<sup>2</sup>愛媛大・農)

##### 演題3 ニワトリ胚の発生過程における代謝組織としての卵黄嚢の役割

～糖新生と甲状腺ホルモンの脱ヨード～

○柴田光浩<sup>1</sup>、Hanny Cho Too<sup>1</sup>、岩澤淳<sup>1,2</sup> (<sup>1</sup>岐阜大院連合農学、<sup>2</sup>岐阜大応用生物)

##### 演題4 海洋漂流プラスチック摂食による海鳥への添加由来化学物質の蓄積

○田中厚資<sup>1</sup>、高田秀重<sup>2</sup>、山下麗<sup>2</sup>、綿貴豊<sup>1</sup> (<sup>1</sup>北海道大学、<sup>2</sup>東京農工大学)

### 特別講演 I

#### 14時40分～15時20分

(座長：小林哲也)

##### 比較形態学・比較発生学から探る鳥類の形態進化

○土岐田昌和 (東邦大学理学部生物学科)

### 一般講演 I

#### 15時30分～16時45分

(座長：戸張靖子)

##### 演題5 スズメ *Passer montanus* における胚発生失敗卵の受精率と胚発生に対するストレスホルモンの効果

○加藤貴大、田辺秀之、沓掛展之 (総合研究大学院大学・先導科学研究科)

**演題6 Analysis of Ambient PM2.5 Distribution in Chicken House and Its Damage on Human Alveolar Epithelial Cells**

○Pengyuan Dai, Dan Shen, Yansen Li, Chunmei Li \* (College of Animal Science and Technology, Nanjing Agricultural University)

**演題7 Accumulation of the steroid hormones in the eggshells of Japanese quail (*Coturnix coturnix japonica*)**

Mohammad Ibrahim Qasimi<sup>1,2</sup>, Hadi Mohibbi<sup>1,2</sup>, Kentaro Nagaoka<sup>1,2</sup> and ○Gen Watanabe<sup>1,2\*</sup>

(<sup>1</sup>Department of Basic Veterinary Science, the United Graduate School of Veterinary Science, Gifu University and <sup>2</sup>Laboratory of Veterinary Physiology, Department of Veterinary Medicine, Tokyo University of Agriculture and Technology)

**演題8 ウズラにおけるセロトニン誘導性消化管収縮運動調節メカニズムの検討**

○ハライ、ドウダニアムリタ、坂井田初季、竹見祥大、坂井貴文、坂田一郎  
(埼玉大学大学院理物理学研究科)

**演題9 雌ウズラの配偶者選択に関する研究**

檜山源<sup>1,†</sup>、政森楓<sup>1</sup>、戸張靖子<sup>2</sup>、松崎芽衣<sup>1</sup>、○笹浪知宏<sup>1,3</sup> (<sup>1</sup>静岡大・農、<sup>2</sup>麻布大・獣医、<sup>3</sup>静岡大・院総合科学技術) †現所属：福島県立医科大学

12月17日（日）

**一般講演II**

**9時15分～10時00分**

(座長：浜崎浩子)

**演題10 ウズラの腎臓における β-Defensin mRNA の発現解析**

○ファムディンユイ<sup>1</sup>、蓮沼至<sup>2</sup>、岩室祥一<sup>2</sup>、菊山榮<sup>3</sup>、小林哲也<sup>1</sup> (<sup>1</sup>埼玉大・院理工、<sup>2</sup>東邦大・理、<sup>3</sup>早大・教育総合科学)

**演題11 Sugar Cane Extract (SCE) influence steroidogenesis in the testicular interstitial cell of Japanese quail**

○S. Pu<sup>1,2</sup>, N. Sakurai<sup>2</sup>, M. Mizu<sup>3</sup>, T Furuta<sup>3</sup>, K. Nagaoka<sup>1,2</sup>, G. Watanabe<sup>1,2</sup>

(<sup>1</sup>United Graduate School of Veterinarian Sciences, Gifu University,

<sup>2</sup>Department of Veterinary Medicine, Tokyo University of Agriculture and Technology, <sup>3</sup>Product Development Division, Mitsui Sugar Co., Ltd., Tokyo)

**演題 12 Molecular Characterization and Isolation of MuBV-1 from Bengalese finch (*Lonchura striata f. domestica*) in Japan**

○Yukiko Sassa<sup>1</sup>, Tomoaki Murakami<sup>1</sup>, Kazuo Okanoya<sup>2</sup>, Keizo Tomonaga<sup>3</sup> Masayuki Horie<sup>3</sup> (<sup>1</sup>Joint Department of Veterinary Medicine, Tokyo University of Agriculture and Technology. <sup>2</sup>Graduate School of Arts and Sciences, The University of Tokyo. <sup>3</sup>Laboratory of Human Tumor Viruses, Department of Viral Oncology, Institute for Virus Research, Kyoto University)

**特別講演Ⅱ**

**10時10分～10時50分**

(座長：渡辺 元)

鳥類の発声の分子制御機構の解明に向けて

○新村 肇 (東京農工大学農学部生物生産学科)

**一般講演Ⅲ**

**11時00分～12時00分**

(座長：笹浪知宏)

**演題 13 刷込み行動により活性化される扁桃体領域とナトリウム利尿ペプチドの発現**

○千葉ゆりの<sup>1,2</sup>、中森智啓<sup>2</sup>、浜崎浩子<sup>2</sup> (<sup>1</sup>北里大学医療系研究科、<sup>2</sup>北里大学一般教育部)

**演題 14 異なる社会環境でのノルアドレナリンによる視床下部 GnIH 遺伝子発現調節**

○戸張靖子<sup>1</sup>、神作宜男<sup>1</sup>、筒井和義<sup>2</sup> (<sup>1</sup>麻布大学・獣医学部・動物応用科学、<sup>2</sup>早稲田大・教育総合科学・統合脳科学)

**演題 15 ツバメの血中テストステロンと装飾の関係は繁殖ステージに依存する**

○長谷川克<sup>1</sup>、新井絵美<sup>1</sup>、佐藤恵<sup>2</sup>、酒井秀嗣<sup>2</sup> (<sup>1</sup>総合研究大学院大学・先導科学研究科、<sup>2</sup>日本大学・歯学部)

**演題 16 簡易的ヘマトクリット測定はアンドロジエン変化・差異をモニターできるか**

ウズラ(*Coturnix japonica*)を用いたアンドロジエンとヘマトクリットに関する研究

○小林翔平<sup>1</sup>、渡辺元<sup>2</sup> (<sup>1</sup>東京農工大学大学院連合農学研究科、<sup>2</sup>東京農工大学獣医生理学研究室)

**12時00分～ 閉会の挨拶**

## **41<sup>th</sup> Annual Meeting of Japanese Avian Endocrinology**

**December 16-17, 2017, Fuchu, Tokyo**

### **December 16**

**Opening of the meeting (13:20 - )**

**Lecture for young researcher award (13:30-14:30)**

#### **1. Pathogenesis and transmission of AA amyloidosis in Japanese quail**

○Murakami T<sup>1</sup>, Nakayama Y<sup>1</sup>, Miyoshi T<sup>1</sup>, Ono A<sup>1</sup>, Suzuki K<sup>1</sup>, Watanabe G<sup>2</sup> (<sup>1</sup>Laboratory of Veterinary Toxicology, <sup>2</sup>Laboratory of Veterinary Physiology, Tokyo University of Agriculture and Technology)

#### **2. Intracerebroventricular administration of PrRP small interfering RNA (siRNA) in chick**

○Misa Takeda<sup>1</sup>, Tetsuya Tachibana<sup>2</sup>, Masami Ochiai<sup>1</sup>, Takeshi Ohkubo<sup>1</sup>  
(<sup>1</sup>Ibaraki University, <sup>2</sup>Ehime University)

#### **3. The role of the yolk sac as a metabolic tissue in chick embryo developing: gluconeogenesis and thyroid hormone deiodination**

○Shibata M<sup>1</sup>, Hanny CT<sup>1</sup>, Iwasawa A<sup>1,2</sup> (<sup>1</sup>United Graduate School of Agricultural Science, Gifu University, Faculty of Applied Biological Sciences, Gifu University)

#### **4. Accumulation of plastic-derived PBDEs in tissues of seabirds ingesting marine plastics**

○Kosuke Tanaka<sup>1</sup>, Hideshige Takada<sup>2</sup>, Rei Yamashita<sup>2</sup>, Yutaka Watanuki<sup>1</sup>  
(<sup>1</sup>Hokkaido University, <sup>2</sup>Tokyo University of Agriculture and Technology)

### **Invited lecture I (14:40-15:20)**

#### **Understanding morphological evolution of birds through comparative studies of morphology and development**

○Masayoshi Tokita (Department of Biology, Faculty of Science, Toho University)

### **General lecture I (15:30-16:45)**

#### **5. Fertility of undeveloped eggs and hormonal effect on embryo development in Eurasian tree sparrows**

##### ***Passer montanus***

○Takahiro Kato, Hideyuki Tanabe, Nobuyuki Kutsukake  
SOKENDAI (The Graduate University for Advanced Studies)

## **6. Analysis of Ambient PM<sub>2.5</sub> Distribution in Chicken House and Its Damage on Human Alveolar Epithelial Cells**

○Pengyuan Dai, Dan Shen, Yansen Li, Chunmei Li\* (College of Animal Science and Technology, Nanjing Agricultural University) \* Corresponding author

## **7. Accumulation of the steroid hormones in the eggshells of Japanese quail (*Coturnix coturnix japonica*)**

Mohammad Ibrahim Qasimi<sup>1,2</sup>, Hadi Mohibbi<sup>1,2</sup>, Kentaro Nagaoka<sup>1,2</sup> and ○Gen Watanabe<sup>1,2\*</sup> (<sup>1</sup>Department of Basic Veterinary Science, the United Graduate School of Veterinary Science, Gifu University and

<sup>2</sup>Laboratory of Veterinary Physiology, Department of Veterinary Medicine, Tokyo University of Agriculture and Technology)

## **8. The mechanism of serotonin-induced gastrointestinal motility in Japanese Quail**

○Ha rai, Amrita Dudani, Hatsuki Sakaida, Shota Takemi, Takafumi Sakai, Ichiro Sakata (Area of Regulatory Biology, Division of Life Science, Graduate School of Science and Engineering, Saitama University)

## **9. The studies on the mating preference in female Japanese quail**

Gen Hiyama<sup>1,†</sup>, Kaede Masamori<sup>1</sup>, Yasuko Tobari<sup>2</sup>, Mei Matsuzaki<sup>1</sup> and ○Tomohiro Sasanami<sup>1,3</sup> (<sup>1</sup>Faculty of Agriculture, Shizuoka University, <sup>2</sup>School of Veterinary Medicine, Azabu University, <sup>3</sup>Graduate School of Integrated Science and Technology, Shizuoka University; <sup>†</sup>Current affiliation. Medical-Industrial Translational Research Center, Fukushima Medical University)

## **Banquet (18:00-20:00)**

## **December 17**

### **General lecture II (9:45-10:00)**

## **10. Expression analyses of β-Defensin mRNA in the quail kidney**

○Duy Pham Dinh<sup>1</sup>, Itaru Hasunuma<sup>2</sup>, Shawichi Iwamuro<sup>2</sup>, Sakae Kikuyama<sup>3</sup>, Tetsuya Kobayashi<sup>1</sup> (<sup>1</sup>Faculty of Science, Saitama University, Japan; <sup>2</sup>Faculty of Science, Toho University, Japan; <sup>3</sup>Faculty of Education and Integrated Arts and Sciences, Center for Advanced Biomedical Sciences, Waseda University, Japan)

## **11. Sugar Cane Extract (SCE) influence steroidogenesis in the testicular interstitial cell of Japanese quail**

○S. Pu<sup>1,2</sup>, N. Sakurai<sup>2</sup>, M. Mizu<sup>3</sup>, T Furuta<sup>3</sup>, K. Nagaoka<sup>1,2</sup>, G. Watanabe<sup>1,2</sup>

(<sup>1</sup>United Graduate School of Veterinarian Sciences, Gifu University,

<sup>2</sup>Department of Veterinary Medicine, Tokyo University of Agriculture and Technology, <sup>3</sup>Product Development Division, Mitsui Sugar Co., Ltd., Tokyo)

**12. Molecular Characterization and Isolation of MuBV-1 from Bengalese finch (*Lonchura striata f. domestica*) in Japan**

○Yukiko Sassa<sup>1</sup>, Tomoaki Murakami<sup>1</sup>, Kazuo Okanoya<sup>2</sup>, Keizo Tomonaga<sup>3</sup> Masayuki Horie<sup>3</sup> (<sup>1</sup>Joint Department of Veterinary Medicine, Tokyo University of Agriculture and Technology. <sup>2</sup>Graduate School of Arts and Sciences, The University of Tokyo. <sup>3</sup>Laboratory of Human Tumor Viruses, Department of Viral Oncology, Institute for Virus Research, Kyoto University)

**Invited lecture II (10:10-10:50)**

**Toward understanding of molecular mechanism of innate vocalization in birds**

○Tsuyoshi Shimmura (Tokyo University of Agriculture and Technology)

**General lecture III (11:00-12:00)**

**13. Activation of amygdala by imprinting and expression of natriuretic peptides.**

○Yurino Chiba<sup>1,2</sup>, Tomoharu Nakamori<sup>2</sup>, Hiroko Ohki-Hamazaki<sup>2</sup> (<sup>1</sup>Kitasato University Graduate School of Medical Sciences, <sup>2</sup>Kitasato University College of Liberal Arts and Sciences)

**14. Noradrenergic modulation of gonadotropin-inhibitory hormone gene expression in the brain of Japanese quail**

○Yasuko Tobari<sup>1</sup>, Norio Kansaku<sup>1</sup>, Kazuyoshi Tsutsui<sup>2</sup>

<sup>1</sup>Department of Animal Science & Biotechnology, School of Veterinary Medicine, Azabu University,

<sup>2</sup>Department of Biology, Waseda University)

**15. Relationship between plasma testosterone levels and expression of male ornaments depends on breeding stage in Japanese barn swallows**

○Masaru Hasegawa<sup>1</sup>, Emi Arai<sup>1</sup>, Megumi Sato<sup>2</sup> and Hidetsugu Sakai<sup>2</sup>

<sup>1</sup>Department of Evolutionary Studies of Biosystems, Sokendai (The Graduate University for Advanced

Studies), <sup>2</sup>Nihon University School of Dentistry

**16. Can practical hematocrit measurement monitor the change and difference of androgen concentrations?**

**- The relationship between androgen and hematocrit in the Japanese quail (*Coturnix japonica*)**

○Shohei Kobayashi<sup>1</sup>, Gen Watanabe<sup>2</sup> (<sup>1</sup>United graduate school of agricultural science, Tokyo University of Agriculture and Technology, <sup>2</sup>Laboratory of veterinary physiology, Tokyo University of Agriculture and Technology)

**Closing of the meeting (12:00 -)**