

Faculty of Applied Biological Sciences  
Gifu University

Annual Report of Research Activities 2021

Vol. 18

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## I Research Achievement

### 1) Academic Paper

#### 【Course of Applied Life Science】

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※1 Also recorded on Course of Agricultural and Environmental Science

※2 Also recorded on Joint Department of Veterinary Medicine

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- ※2 Also recorded on Course of Applied Life Science
- ※3 Also recorded on Course of Agricultural and Environmental Science
- ※4 Also recorded on Course of Agricultural and Environmental Science
- ※5 Also recorded on Course of Agricultural and Environmental Science
- ※6 Also recorded on Animal Medical Center
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#### 【Animal Medical Center】

- [1] ※6Goto S, **Iwasaki R**, Sakai H, Mori T.  
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- ※6 Also recorded on Joint Department of Veterinary Medicine
  - ※8 Also recorded on Joint Department of Veterinary Medicine
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#### 【Research Center for Wildlife Management】

- [1] **Higashide D**, Kuriyama T, Takagi S, Nakashima Y, Fukasawa K, Yajima G, Kasada M, Yokoyama M.  
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*Wildlife Biology*, Vol.2021(4), 2021/10/15
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- ※7 Also recorded on Joint Department of Veterinary Medicine

## 2) Book

#### 【Course of Applied Life Science】

- [1] A.H.M. Nurun Nabi , **Akio Ebihara**.  
“Diabetes and Renin-Angiotensin-Aldosterone System: Pathophysiology and Genetics.”  
IntechOpen., 2021/04

## II Lectures, Conference Presentation, etc.

### 1) Conference Presentation

#### 【Course of Applied Life Science】

- [1] Fawzan Sigma Aurum, **Tepei Imaizumi**, **Manasikan Thammawong**, **Kohei Nakano**.  
“Development of a HS-SPME/GC-MS method for the extraction and identification of the volatile compounds in coffee”  
International Symposium on a Recent Progress in Forest Ecology and Management 2021(Online), 2021/11/11
- [2] Fujimoto R, Kassai M, **Yamauchi K**, **Mitsunaga T**.  
“Neurite outgrowth effect on PC12 cells from Piper longum fruit extracts.”  
The 11th JCK Joint Symposium on Pharmacognosy(Online), 2021/09/18-20
- [3] Hara T, Kassai M, **Yamauchi K**, **Mitsunaga T**.  
“Identification of NK cell activator from Citrus hystrix leaf extracts.”  
The 11th JCK Joint Symposium on Pharmacognosy(Online), 2021/09/18-20
- [4] Maki Suzuki, Minh Tu Thi Nguyen, **Kosei Yamauchi**, **Tohru Mitsunaga**.  
“Structural analysis of saponins from the leaves of Ilex kaushue (Kudingcha).”  
The 11th JCK Joint Symposium on Pharmacognosy(Online), 2021/09/18-20
- [5] Naruemon Piyasathianrat, **Tepei Imaizumi**, Pongphen Jitareerat.  
“Effect of calcium ascorbate infiltration against browning in fresh cut apple”  
V ISHS Asia Symposium on Quality Management in Postharvest Systems(Bangkok, Thailand), 2021/12/01-03
- [6] Oshima T, **Imaizumi T**, **Katsuno N**, **Nishizu T**.  
“AFM observation of carrot pectin growth by adding calcium”  
13th International Conference on Agrophysics(Online), 2021/11/15-16
- [7] Yingxi Chen, Kohji Nishimura, **Yoshiharu Y. Yamamoto**, Takayuki Shimizu, Tatsuru Masuda.  
“Light- and tissue-dependent regulation of transcriptional start sites of HO1 in Arabidopsis thaliana”  
The 85th Annual Meeting of the Botanical Society of Japan(Tokyo), 2021/09/18
- [8] Yuya Kakumu, Minh Tu Thi Nguyen, **Tohru Mitsunaga**.  
“Molecular Networking-based isolation of dimeric chromenes from leaves of Melicope pteleifolia.”  
The 11th JCK Joint Symposium on Pharmacognosy(Online), 2021/09/18-20

#### 【Course of Agricultural and Environmental Science】

- [1] Cahyo Wisnu Rubiyanto, **Isao Hirota**.  
“Transitions and Diversification in Livelihood Strategy of Montane People under Chinese and Vietnamese Influence in Northern Laos”  
The 31st Annual Meeting of the Japan Society of Tropical Ecology (JASTE31) in Hiroshima(Online), 2021/06/26
- [2] Ekawa M, **Kusuda S**, Miyajima M, Oshima Y, Ohno Y, Kanda K, Ryono M, Kurita M.  
“Ovarian cycle monitoring based on urinary and fecal steroid concentrations, length between mammary slits and body temperature in a captive female killer whale”  
The 14th Asian Society of Conservation Medicine/ 27th Japanese Society of Zoo and Wildlife Medicine 2021 Joint Conference(Hybrid), 2021/09/21-24
- [3] Fujihara M, Kinoshita K, Ito H, **Kusuda S**, Otsuka R, Kaneko T, Nagamine T, Onuma M, Nakaya Y, Kawashima T, Inoue-Murayama M.  
“Ex situ conservation of endangered wildlife, Tsushima leopard cats and Okinawa rails, using germ cells”  
The 14th Asian Society of Conservation Medicine/ 27th Japanese Society of Zoo and Wildlife Medicine 2021 Joint Conference(Hybrid), 2021/09/21-24

- [4] Kanatani N, **Kusuda S**, Otozu W, Kumaoka S, Taniguchi S, Takehana K.  
“Pregnancy diagnosis based on the profile of serum prolactin in Asian and African elephants measured by commercial ELISA kit”  
The 14th Asian Society of Conservation Medicine/ 27th Japanese Society of Zoo and Wildlife Medicine 2021 Joint Conference(Hybrid), 2021/09/21-24
- [5] Kimpara H, Akiba Y, Murai H, Horiguchi M, Miyano N, Takahashi Y, Shiraishi T, Koyama M, Sato T, **Kusuda S**.  
“Factors affecting the timing and traits of egg-laying in captive Japanese rock ptarmigan (*Lagopus muta japonica*) ”  
The 14th Asian Society of Conservation Medicine/ 27th Japanese Society of Zoo and Wildlife Medicine 2021 Joint Conference(Hybrid), 2021/09/21-24
- [6] Shunkei Kakimoto, Taro Mieno, **Takashi S. T. Tanaka**.  
“Machine Learning Methods for Site-specific Input Management”  
#OFE2021(Online), 2021/10/13-15
- [7] **Takashi S. T. Tanaka**.  
“Development of Robust Spatial Statistical Approach for On-Farm Experimentation”  
10th Asian Crop Science Association Conference(Online), 2021/09/08-10
- [8] **Takashi S. T. Tanaka**, Ryoya Tanabe, Tsutomu Matsui.  
“Can on-farm experiments benefit small- to moderate-scale farmers? ”  
13th European Conference on Precision Agriculture(Online), 2021/07/19-22
- [9] **Takashi S. T. Tanaka, Tsutomu Matsui**.  
“Explainable machine learning for site-specific yield response modeling using Moran’s eigenvector maps”  
#OFE2021(Online), 2021/10/13-15

#### 【Joint Department of Veterinary Medicine】

- [1] Kojima I, Onomoto K, Naitou K, Okuya K, Okajima M, **Ito N**, Sugiyama M, Ozawa M, Yoneyama M, Fujita T, **Masatani T**.  
“Stress granule formation mechanism related to amino acid substitution at position 95 in rabies virus matrix protein  
The 68<sup>th</sup> Annual Meeting of the Japanese Society for Virology (Kobe • Online) , 2021/11/16
- [2] Md. Matiur Rahman, Shigeo Takashima, Yuji O. Kamatari, Yuko Kitamura, Kaori Shimizu, **Ayaka Okada, Yasuo Inoshima**.  
“mRNA dynamics in milk extracellular vesicles in correlation with bovine leukemia virus copy number in cattle”  
The 8<sup>th</sup> Annual Meeting of Japanese Society for Extracellular Vesicles (Online) , 2021/10/18
- [3] Md. Matiur Rahman, Shigeo Takashima, Yuji Kamatari, Badr Yassien, Yuko Kitamura, Kaoru Shimizu, **Ayaka Okada, Yasuo Inoshima**  
“mRNA biomarkers in milk extracellular vesicles”  
The 164<sup>th</sup> meeting of the Japanese Society of Veterinary Science (Web) , 2021/09/07-13
- [4] Md Shahriar Hasan Sohel, **Sawa Onouchi, Shouichiro Saito**.  
“The expression patterns of prosaposin and its receptors GPR37 and GPR37L1 mRNAs in the chick inner ear”  
The 164<sup>th</sup> meeting of the Japanese Society of Veterinary Science (Web) , 2021/09/07-13
- [5] Okajima M, Kojima I, Naitou K, Ozawa M, Suda Y, Yanase T, **Ito N, Masatani T**.  
“Akabane virus NSs protein shows strain-related variation as a factor for neurovirulence with post-natal infection in a murine model”  
The 68<sup>th</sup> Annual Meeting of the Japanese Society for Virology (Kobe • Online) , 2021/11/16

#### 【Animal Medical Center】

- [1] Matsukawa T, Takeno S, **Iwasaki R**, Suzuki M, Yokoyama K.  
“Comparison of CR-39 autoradiography and laser ablation ICP-MS imaging to assess 10B distribution of tibia bone in 10BPA-treated mice”  
19th International Congress on Neutron Capture Therapy(Online), 2021/09/05-10

2) Academic lecture

**【Course of Agricultural and Environmental Science】**

[1] **Takashi S. T. Tanaka.**

“Rethinking Experimental Designs and Data Analysis for On-Farm Experimentations”

#OFE2021 Pre-Conference Theme 3 – Data and analytics(Online), 2021/05/17 (Invitation lecture)





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Faculty of Applied Biological Sciences

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