

Faculty of Applied Biological Sciences  
Gifu University

Annual Report of Research Activities 2020

Vol. 17

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## I Research Achievement

### 1) Academic Paper

#### 【Course of Applied Life Science】

- [1] Alfarafisa NM, **Kitaguchi K, Yabe T**.  
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**【Course of Agricultural and Environmental Science】**

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- [51] <sup>\*1</sup>Yoshikawa R, Heishima K, Ueno Y, **Kawade M**, Maeda Y, Yoshida K, **Murakami M**, **Sakai H**, Akao Y, **Mori T**.  
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 ※2 Also recorded on Course of Agricultural and Environmental Science  
 ※3 Also recorded on Course of Agricultural and Environmental Science  
 ※4 Also recorded on Research Center for Wildlife Management  
 ※5 Also recorded on Animal Medical Center

#### 【Gifu Field Science Center】

- [1] Kume A, Fujimoto M, Mizoue N, Honoki H, Nakajima H, **Ishida M**.  
 “Impact of reduced ozone concentration on the mountain forests of Mt. Tateyama, Japan.”  
*Environmental pollution*, Vol.267, pp.115407, 2020/12

#### 【Animal Medical Center】

- [1] <sup>\*5</sup>Tanahashi Y, **Iwasaki R**, Shoda S, Kawada H, Ando T, Takasu M, Hyodo F, Goshima S, Mori T, Matsuo M.  
 “Dynamic contrast-enhanced computed tomography lymphangiography with intranodal injection of water-soluble iodine contrast media in microminipig: imaging protocol and feasibility.”  
*European radiology*, Vol.30, pp.5913-5922, 2020/06/26

- ※5 Also recorded on Joint Department of Veterinary Medicine

#### 【Research Center for Wildlife Management】

- [1] <sup>\*4</sup>**Ikeda T**, Asano M, Kuninaga N, Suzuki M.  
 “Monitoring relative abundance index and age ratios of wild boar (*Sus scrofa*) in small scale population in Gifu prefecture, Japan during classical swine fever outbreak”  
*Journal of Veterinary Medical Science*, Vol.82(6), pp.861-865, 2020

- ※4 Also recorded on Joint Department of Veterinary Medicine

## 2) Book

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

- [1] Hasib A, **Matsubara Y**. (multiple authorship)  
 「Variation of secondary metabolites in Lamiaceae herbs water extracts.」 『The Lamiaceae Family: An Overview』  
 Nova Sci. Pub., New York, 2020/04/04
- [2] **Onishi T**, Shiraiwa T.  
 「Land and ocean connection through iron transport by rivers: the case of the Amur-Okhotsk ecosystem (Giant Fish-Breeding Forest)」 『The Bioeconomy Approach Constraints and Opportunities for Sustainable Development』  
 CRC Press Taylor and Francis Group, 2020/03/12

## II Lectures, Conference Presentation, etc.

### 1) Conference Presentation

#### 【Course of Applied Life Science】

- [1] Fawzan S. Aurum, **Manasikan Thammawong, Teppei Imaizumi, Kohei Nakano.**  
“Lipidomic fingerprinting of Indonesian coffee to determine its geographical origin by LC-MS/MS”  
UGSAS-GU & BWEL Joint Poster Session on Agricultural and Basin Water Environmental Sciences  
2020(Online), 2020/11/10
- [2] **Imaizumi T**, Ando H.  
“Relationships between inner air spaces and electrical properties of heated mung bean sprout”  
INTERNATIONAL SYMPOSIUM ON FOOD SCIENCES FST, UKM - GIFU UNIVERSITY  
2020(Online), 2020/09/22
- [3] Putri Wulandari Zainal, **Manasikan Thammawong, Teppei Imaizumi, Masayasu Nagata, Kohei Nakano.**  
“Lipidomic profiling of fresh-cut cabbage stored at low temperature by liquid chromatography-tandem mass spectroscopy”  
UGSAS-GU & BWEL Joint Poster Session on Agricultural and Basin Water Environmental Sciences  
2020(Online), 2020/11/10
- [4] **Shimada A**, Etoh Y, Shinzawa-Itoh K, Yamashita E, Muramoto K, Tsukihira T, Yoshikawa S.  
“O<sub>2</sub>-activation and unidirectional proton-pump mechanisms of cytochrome c oxidase elucidated by X-ray structures of its catalytic intermediates”  
The 20<sup>th</sup> Annual Meeting of the Protein Science Society of Japan (Online) , 2020/07/15-09/30
- [5] **Shimada A**, Kozai D, Nishikawa K, Fujiyoshi Y, Sho G, Mizutani T, Tani K.  
“The structural analysis of cytochrome c oxidase complexed with cytochrome c using cryo-electron microscopy.”  
The 58th Annual Meeting of the Biophysical society of Japan (Online) , 2020/09/16-18
- [6] Sugianti C, **Imaizumi T, Thammawong M, Nakano K.**  
“Bioelectrical impedance properties of banana fruits during storage”  
UGSAS-GU & BWEL Joint Poster Session on Agricultural and Basin Water Environmental Sciences  
2020(Online), 2020/11/10
- [7] Viagian Pastawan, Soya Suganuma, Kosuke Mizuno, Lun Wang, **Masaya Shimada, Takashi Hayakawa,**  
Nanung Agus Fitriyanto, **Tomoyuki Nakagawa.**  
“Light lanthanides induce methylotrophy and methanol oxidation pathway in Bradyrhizobium sp. strain Ce-3.”  
The 2020 annual meeting of the Japan Society for Bioscience, Biotechnology and Agrochemistry (HP) ,  
2020/03/25-28

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

- [1] Fang C, Shimizu H, **Nishiyama T, Nishimura S**, Imaizumi F.  
“Experimental study on estimating the residual frictional angle of soils by available indexes for agricultural reservoir embankments”  
The 2020 (the 69th) agriculture farm village Japan Federation of Engineering Societies meet lecture  
(Web) , 2020/08/25-27

#### 【Joint Department of Veterinary Medicine】

- [1] Badr Y, El-Neweshy MS, Elewa YHA, Noreldin AE, Aamer W, **Inoshima Y.**  
“Histopathological change and cellular response in skin lesions associated with naturally occurring lumpy skin disease”  
SaSSOH 2020(Online), 2020/09/16

- [2] Badr Y, Rahman MM, Shimizu K, **Okada A, Inoshima Y.**  
 “Establishment of an ELISA assay for serological diagnosis of seal parapoxvirus infection in pinnipeds”  
 The 163<sup>rd</sup> meeting of the Japanese Society of Veterinary Science (Web) , 2020/09/14-30
- [3] Hyodo F, Eto H, Shoda S, Koyasu N, Tomita H, **Takasu M, Mori T, Matsuo M.**  
 “Mitochondrial Redox Imaging of NASH model mice using in vivo DNP MRI”  
 The 48<sup>th</sup> Annual Meeting of the Japanese Society for Magnetic Resonance in Medicine (Web) ,  
 2020/09/11-10/04
- [4] ※<sup>6</sup>Iwasaki R, Goto S, **Mori T.**  
 “Identification of sentinel lymph nodes using CT lymphography in dogs with oral malignant melanoma”  
 Veterinary Cancer Society Annual Conference(Online), 2020/10
- [5] ※<sup>7</sup>Koyasu N, Hyodo F, Iwasaki R, **Mori T, Yamaguchi T, Matsuo M.**  
 “Visualization of free radical generation induced by radiation using dynamic nuclear polarization-MRI.”  
 2020 ASTRO Annual Meeting (Online) , 2020/10/25-28
- [6] ※<sup>8</sup>Koyasu N, Hyodo F, Shoda S, Iwasaki R, Tomita H, Masaki T, **Mori T, Matsuo M.**  
 “Noninvasive redox imaging of tumor redox status for early detection of radiation response using in vivo  
 DNP-MRI.”  
 2020 ASTRO Annual Meeting (Online) , 2020/10/25-28
- [7] ※<sup>9</sup>Maeda A, Goto S, Iwasaki R, **Murakami M, Sakai H, Mori T.**  
 “Outcomes of dogs with localized bile duct carcinoma following surgery: A retrospective study of seven  
 dogs”  
 Veterinary Cancer Society Annual Conference(Online), 2020/10
- [8] Rahman MM, Takashima S, Kamatari YO, Badr Y, Shimizu K, **Okada A, Inoshima Y.**  
 “Proteomic analysis of milk extracellular vesicles obtained from bovine leukemia virus-infected cows”  
 SaSSOH 2020(Online), 2020/09/16
- [9] Rahman MM, Takashima S, Kamatari Y, Badr Y, Shimizu K, **Okada A, Inoshima Y.**  
 “Proteome analysis of milk extracellular vesicles from bovine leukemia virus-infected cows”  
 The 163<sup>rd</sup> meeting of the Japanese Society of Veterinary Science (Web) , 2020/09/14-30

※<sup>6</sup> Also recorded on Animal Medical Center

※<sup>7</sup> Also recorded on Animal Medical Center

※<sup>8</sup> Also recorded on Animal Medical Center

※<sup>9</sup> Also recorded on Animal Medical Center

#### 【Animal Medical Center】

- [1] ※<sup>6</sup>**Iwasaki R, Goto S, Mori T.**  
 “Identification of sentinel lymph nodes using CT lymphography in dogs with oral malignant melanoma”  
 Veterinary Cancer Society Annual Conference(Online), 2020/10
- [2] ※<sup>7</sup>Koyasu N, Hyodo F, **Iwasaki R, Mori T, Yamaguchi T, Matsuo M.**  
 “Visualization of free radical generation induced by radiation using dynamic nuclear polarization-MRI.”  
 2020 ASTRO Annual Meeting (Online) , 2020/10/25-28
- [3] ※<sup>8</sup>Koyasu N, Hyodo F, Shoda S, **Iwasaki R, Tomita H, Masaki T, Mori T, Matsuo M.**  
 “Noninvasive redox imaging of tumor redox status for early detection of radiation response using in vivo  
 DNP-MRI.”  
 2020 ASTRO Annual Meeting (Online) , 2020/10/25-28
- [4] ※<sup>9</sup>Maeda A, Goto S, **Iwasaki R, Murakami M, Sakai H, Mori T.**  
 “Outcomes of dogs with localized bile duct carcinoma following surgery: A retrospective study of seven  
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 Veterinary Cancer Society Annual Conference(Online), 2020/10

- ※6 Also recorded on Joint Department of Veterinary Medicine
- ※7 Also recorded on Joint Department of Veterinary Medicine
- ※8 Also recorded on Joint Department of Veterinary Medicine
- ※9 Also recorded on Joint Department of Veterinary Medicine

## 2) Academic lecture

### 【Course of Applied Life Science】

- [1] **Nagaoka S.**  
“Novel cholesterol lowering peptides derived from food proteins”  
International Symposium on Food Science, FST, UKM-Gifu University 2020(Online), 2020/09/22  
(Invitation lecture)
- [2] **Nakano K.**  
“Postharvest Technology in the Post-COVID-19”  
The 1st Agro-industrial Technology Online Conference, 2020/09/17 (Invitation lecture)
- [3] **Yabe T.**  
“Pectin induces proliferation of intestinal cells through the alteration of cell-surface heparan sulfate”  
International Symposium on Food Science, FST, UKM-Gifu University 2020(Online), 2020/09/22  
(Invitation lecture)
- [4] **Yabe T.**  
“Dietary fiber and food fortification”  
Webinar on “Food Fortification – Fortifying the Nation”, NetProFaN-North East Chapter & University of Science & Technology, Meghalaya, India(Online), 2020/09/24 (Invitation lecture)

### 【Course of Agricultural and Environmental Science】

- [1] Tasya Kamila, Sutarno, Nashir Uddin, James MacGregor, Agung Suryawan Wiranatha, Takashi S. T. Tanaka, Sanjib K. Panda, Emmy Latifah, Mahawan Karuniasa.  
“Lessons Learn from Covid-19 Pandemic for Climate Change Adaptation and Mitigation Strategies”  
The 5th International Conference on Climate Change(Zoom), 202009/24 (Invitation lecture)



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