

Faculty of Applied Biological Sciences  
Gifu University

Annual Report of Research Activities 2022

Vol. 19

# CONTENTS

## I Research Achievement

1. Academic Paper .....	1
2. Book .....	19

## II Lectures, Conference Presentation, etc.

1. Conference Presentation .....	20
2. Academic lecture .....	21

## I Research Achievement

### 1) Academic Paper

#### 【Course of Applied Life Science】

- [1] Akash Chandela, Hiroki Ueda, **Yoshihito Ueno**.  
“Synthesis of 4' - C - (Aminoethyl)thymidine and 4' - C - [(N - Methyl)aminoethyl] Thymidine Nucleosides to Enhance DNA Stability”  
*Current Protocols*, Vol.2(9), pp.e501, 2022/04/15
- [2] Anita Maya Sutedja, Ayumi Ito, **Emiko Yanase**, Irmanida Batubara, Dedi Fardiaz, Hanifah Nuryani Lioe.  
“Influence of jack bean (*Canavalia ensiformis* (L) DC) milk processing on bioactive compounds and its antioxidant activity”  
*Food Science and Technology (Brazil)*, Vol.42, pp.e11521, 2022
- [3] Anita Maya Sutedja, **Emiko Yanase**, Irmanida Batubara, Dedi Fardiaz, Hanifah Nuryani Lioe.  
“Thermal Stability of Anisoyl Kaempferol Glycosides in Jack Bean (*Canavalia ensiformis* (L.) DC) and Their Effect on  $\alpha$ -Glucosidase”  
*Journal of Agricultural and Food Chemistry*, Vol.70(8), pp.2695-2700, 2022/03/02
- [4] Arata Banno, Mako Yamamoto, Maihemuti Mijiti, Asahi Takeuchi, Yuyang Ye, Natsuki Oda, Nanami Nishino, **Akio Ebihara**, **Satoshi Nagaoka**.  
“The physiological blood concentration of phenylalanine-proline can ameliorate cholesterol metabolism in HepG2 cells”  
*Bioscience, Biotechnology, and Biochemistry*, Vol.87(1), pp.90-98, 2022/12/21
- [5] Aurum FS, **Imaizumi T**, **Thammawong M**, Praseptiangga D, **Nakano K**.  
“Coffee Origin Determination Based on Analytical and Nondestructive Approaches –A Systematic Literature Review”  
*Reviews in Agricultural Science*, Vol.10, pp.257-287, 2022/10
- [6] Aurum FS, **Imaizumi T**, **Thammawong M**, Suhandy D, Praseptiangga D, Tsuta M, Nagata M, **Nakano K**.  
“Lipidomic profiling of Indonesian coffee to determine its geographical origin by LC-MS/MS”  
*European Food Research and Technology*, Vol.248, pp.2887-2899, 2022/08/08
- [7] Ayaka Tsuchiya, Miho Kobayashi, Yuji O.Kamatari, **Tohru Mitsunaga**, **KoseiYamauchi**.  
“Development of flavonoid probes and the binding mode of the target protein and quercetin derivatives”  
*Bioorganic & Medicinal Chemistry*, Vol.68, pp.116854, 2022/08/15
- [8] Cai HL, **Shimada M**, **Nakagawa T**.  
“The potential and capability of the methylotrophic yeast *Ogataea methanolica* in a “methanol bioeconomy””  
*Yeast*, Vol.39(8), pp.440-448, 2022/08
- [9] Chandela A, Ueda H, **Ueno Y**.  
“Synthesis of 4'-C-(Aminoethyl)thymidine and 4'-C-[(N-Methyl)aminoethyl] Thymidine Nucleosides to Enhance DNA Stability”  
*Current Protocols*, Vol.2(9), pp.e501, 2022/09
- [10] Chizuru Akatsu, Amin Alborzian Deh Sheikh, Naoko Matsubara, Hiromu Takematsu, Astrid Schweizer, Hajjaj H M Abdu-Allah, Thomas F Tedder, Lars Nitschke, **Hideharu Ishida**, Takeshi Tsubata.  
“The inhibitory coreceptor CD22 restores B cell signaling by developmentally regulating Cd45-/- immunodeficient B cells”  
*Science signaling*, Vol.15(723), pp.eab9570, 2022/03

- [11] Ciptaningtyas D, Benyakart N, Umehara H, Johkan M, Nakamura N, Orikasa T, **Thammawong M**, Shiina T.  
“Modeling the metachronous ripening pattern of mature green tomato as affected by cultivar and storage temperature”  
*Scientific Reports*, Vol.12, pp.8241, 2022/05/17
- [12] Fakfan Luangapai, Methavee Peanparkdee, **Satoshi Iwamoto**.  
“Effects of A Curcumin Nanoemulsion on The Physico - Chemical Properties of Chitosan - Based Films”  
*International Journal of Food Science & Technology*, Vol.57(1), pp.101-109, 2022/01
- [13] Hagino R, Mozaki K, Komura N, **Imamura A, Ishida H**, Ando H, Tanaka H-N.  
“Straightforward Synthesis of the Poly(ADP-ribose) Branched Core Structure”  
*ACS Omega*, Vol.36, pp.32795-32804, 2022/09/04
- [14] Hamajima S, Komura N, Tanaka H-N, **Imamura A, Ishida H**, Noguchi H, Ichiyanaagi T, Ando H.  
“Full stereocontrol in  $\alpha$ -glycosidation of 3-deoxy-d-manno-2-octulosonic acid (Kdo) using macrobicyclic glycosyl donors”  
*Org. Lett.*, Vol.24(47), pp.8672-8676, 2022
- [15] Hamaya Y, Komura N, **Imamura A, Ishida H**, Ando H, Tanaka H-N.  
“Protecting-group- and microwave-free synthesis of  $\beta$ -glycosyl esters and aryl  $\beta$ -glycosides of N-acetyl-d-glucosamine”  
*Bioorganic & medicinal chemistry*, Vol.67, pp.116852, 2022/08/01
- [16] Hattori H, Moriyama A, Ohno T, Shibata T, **Iwahashi H, Mitsunaga T**.  
“Molecular networking-based lipid profiling and multi-omics approaches reveal new contributions of functional vanilloids to gut microbiota and lipometabolism changes.  
*Food chemistry. Molecular sciences*, Vol.5, pp.100123, 2022/12/30
- [17] Hattori Y, Tsutsui S, Yamada C, Kobayashi Y, **Nakagawa T, Shimada M**.  
“Dietary supplementation with sodium butyrate reduces high-sucrose diet-induced hepatic accumulation of triacylglycerols and expression of fatty acid synthesis enzymes in rats”  
*J Oleo Sci.*, Vol.71(8), pp.1189-1193, 2022
- [18] Hayato Ozaki, Takuya Asano, Hide-Nori Tanaka, Naoko Komura, Hiromune Ando, **Hideharu Ishida, Akihiro Imamura**.  
“Blockwise synthesis of poly lactosamine fragments and keratan sulfate oligosaccharides comprised of dimeric Gal  $\beta$  (1  $\rightarrow$  4)GlcNAc6S  $\beta$ ”  
*Carbohydrate Research*, Vol.512, pp.108502, 2022/02
- [19] Hend Altaib, Tomoya Kozakai, Yassien Badr, Hazuki Nakao, Mahmoud A. M. El-Nouby, **Emiko Yanase**, Izumi Nomura, Tohru Suzuki.  
“Cell factory for gamma-aminobutyric acid (GABA) production using *Bifidobacterium adolescentis*”  
*MICROBIAL CELL FACTORIES*, Vol.21, pp.33, 2022/03/07
- [20] Hiromune Ando, Naoko Komura, Hide-Nori Tanaka, **Akihiro Imamura, Hideharu Ishida**.  
“Chemical synthesis of sialoglyco-architectures.”  
*Advances in carbohydrate chemistry and biochemistry*, Vol.81, pp.31-56, 2022
- [21] Hori M, Kawai Y, **Nakamura K, Shimada M, Iwahashi H, Nakagawa T**.  
“Characterization of the bacterial community structure in traditional Gifu *ayu-narezushi* (fermented sweetfish)”  
*J Biosci Bioeng*, Vol.134(4), 331-337, 2022/10
- [22] Ito A, **Yanase E**.  
“Study into the chemical changes of tea leaf polyphenols during japanese black tea processing”  
*Food Research International*, Vol.160, pp.111731, 2022/10
- [23] **Iwahashi H**.  
“Pressurization technology that enables the utilization of endogenous enzymes in breadmaking processes”  
*Nippon Shokuhin Kagaku Kogaku Kaishi*, Vol.69(9), pp.447-455, 2022/09

- [24] Kajino R, Sakamoto S, **Ueno Y.**  
 “Synthesis, gene silencing activity, thermal stability, and serum stability of siRNA containing four (S)-5′ - C-aminopropyl-2′ -O-methylnucleosides (A, adenosine; U, uridine; G, guanosine; and C, cytidine)”  
*ASC Advances*, Vol.12, pp.11454-11476, 2022/12
- [25] Kakumu Y, Thi Nguyen MT, **Mitsunaga T.**  
 “Molecular networking-based discovery of anti-inflammatory chromene dimers from *Melicope pteleifolia*”  
*Phytochemistry*, Vol.202, pp.113322, 2022/10
- [26] Kartina Batubara I, Kuspradini H, Kusuma IW, Wahyuni WT, Egra S, **Mitsunaga T.**  
 “Diversity of medicinal plants used for skincare by Bulungan tribe in North Kalimantan, Indonesia and its melanin biosynthesis inhibition”  
*Blodlversltas*, Vol.23(3), pp.1246-1253, 2022
- [27] Katsuzaki Y, Tsukimura R, Chandela A, Chano T, **Ueno Y.**  
 “4′-C-Aminoethoxy-Modified DNAs Exhibit Increased Nuclease Resistance, Sustained RNase H Activity, and Inhibition of KRAS Gene Expression”  
*Chem Biodivers*, Vol.19(8), pp.e202200125, 2022/08
- [28] **Kohei Nakamura**, Viagian Pastawan, Soya Suganuma, Kosuke Mizuno, **Masaya Shimada**, Takashi Hayakawa, Nanung Agus Fitriyanto, **Tomoyuki Nakagawa.**  
 “Draft Genome Sequence of a Lanthanide-Responsive Bacterium, *Bradyrhizobium* sp. Strain Ce-3”  
*Microbiology resource announcements*, Vol.11(7), pp.e0018022, 2022/07/21
- [29] Kotaro Sakamoto, Chiharu Watanabe, Teruaki Masutani, Asuka Hirasawa, Kanae Wakamatsu, Arunasiri Iddamaloda, Yuya Kakumu, **Kosei Yamauchi**, **Tohru Mitsunaga.**  
 “Arnica montana L. extract containing 6-O-methacryloylhelenalin and 6-O-isobutyrylhelenalin accelerates growth and differentiation of human subcutaneous preadipocytes and leads volumizing of skin”  
*International journal of cosmetic science*, Vol., pp., 2022/08/19
- [30] Kubo M, Niwa R, Ohno T, **Iwahashi H.**  
 “Variations in fungal and bacterial microbiome and chemical composition among fermenting Kishu-Narezushi batches”  
*Bioscience, biotechnology, and biochemistry*, Vol.86(12), pp.1705-1717, 2022/12
- [31] Kuroki S, Tanaka M, Itoh H, **Nakano K**, Sotome I.  
 “Upgrading the measurement of membrane hydraulic conductivity and osmotically inactive volume of protoplasts for evaluating the freshness of postharvest leafy vegetables”  
*Journal of the ASABE*, Vol.65(1), pp.189-196, 2022
- [32] LaMoia ET, Butrico MG, Kalpage AH, Goedeke L, Hubbatd TB, Vatner FD, Gaspar CR, Zhang X, Cline WG, Nakahara K, Woo S, **Shimada A**, Huttemann M, Shulman IG.  
 “Metformin, phenformin, and galegine inhibit complex IV activity and reduce glycerol-derived gluconeogenesis”  
*Proc. Natl. Acad. Sci. U.S.A.*, Vol.119(10), pp.e2122287119, 2022/03/08
- [33] Mia Miranti, **Hitoshi Iwahashi**, Yolani Syaputri.  
 “Antimicrobial activity of *Lactobacillus sakei* isolated from virgin coconut oil under pH and temperature stress”  
*Korean Journal of Food Preservation*, Vol.29(6), pp.852-860, 2022
- [34] **Misuzu Hashimoto**, Kaho Takeichi, Kazuya Murata, Aoi Kozakai, Atsushi Yagi, Kohei Ishikawa, Chiharu Suzuki-Nakagawa, Yoshitoshi Kasuya, Akiyoshi Fukamizu, **Tsutomu Nakagawa.**  
 “Regulation of neural stem cell proliferation and survival by protein arginine methyltransferase 1”  
*Frontiers in Neuroscience*, Vol.16, pp.948517, 2022/11/10
- [35] **Nakamura K**, Oshima K, Hattori M, Kamagata Y, Takamizawa K.  
 “Complete Genomic Sequence of the Thermophilic Hydrogen-Oxidizing Methanogen *Methanothermobacter tenebrarum* Strain RMAST”  
*Microbiology resource announcements*, Vol.11(7), pp.e0035522, 2022/07/21

- [36] **Nakamura K**, Pastawan V, Suganuma S, Mizuno K, **Shimada M**, Hayakawa T, Fitriyanto NA, **Nakagawa T**.  
“Draft Genome Sequence of a Lanthanide-Responsive Bacterium, *Bradyrhizobium* sp. Strain Ce-3”  
*Microbiol Resour Announc*, Vol.11(7), pp.e0018022, 2022/07/21
- [37] Naruemon Piyasathianrat, **Tepei Imaizumi**.  
“Pongphen Jitareerat: Effect of calcium ascorbate infiltration against browning in fresh cut apple”  
*Acta Horticulturae*, Vol.1336, pp.279-286, 2022
- [38] Ono Y, **Iwahashi H**.  
“Titanium dioxide nanoparticles impart protection from ultraviolet irradiation to fermenting yeast cells”  
*Biochemistry and Biophysics Reports*, Vol.30, pp.101221, 2022/07
- [39] Ozaki H, Asano T, Tanaka H-N, Komura N, Ando H, **Ishida H**, **Imamura A**.  
“Blockwise synthesis of poly lactosamine fragments and keratan sulfate oligosaccharides comprised of dimeric Gal  $\beta$  (1  $\rightarrow$  4)GlcNAc6S  $\beta$ ”  
*Carbohydrate Research*, Vol.512, pp.108502, 2022/02
- [40] Putri Wulandari Zainal, Daimon Syukri, Khandra Fahmy, **Tepei Imaizumi**, **Manasikan Thammawong**, Mizuki Tsuta, Masayasu Nagata, **Kohei Nakano**.  
“Lipidomic profiling to assess the freshness of stored cabbage”  
*Food Analytical Methods*, Vol.16, pp.304-317, 2022/10/28
- [41] Sakai Y, Morikawa Y, Nagao Y, Hattori J, Suenami K, **Yanase E**, Takayama T, Ikari A, Matsunaga T.  
“4'-Iodo- $\alpha$ -Pyrrolidinononaphenone Provokes Differentiated SH-SY5Y Cell Apoptosis Through Downregulating Nitric Oxide Production and Bcl-2 Expression”  
*Neurotoxicity Research*, Vol.40(5), pp.1322-1336, 2022/10
- [42] Sakai Y, Taguchi M, Morikawa Y, Miyazono H, Suenami K, Ochiai Y, **Yanase E**, Takayama T, Ikari A, Matsunaga T.  
“Apoptotic mechanism in human brain microvascular endothelial cells triggered by 4' -iodo-  $\alpha$  - pyrrolidinononaphenone: Contribution of decrease in antioxidant properties”  
*Toxicology Letters*, Vol.355, pp.127-140, 2022/02/01
- [43] Sakai Y, Taguchi M, Morikawa Y, Suenami K, **Yanase E**, Takayama T, Ikari A, Matsunaga T.  
“Lowering of brain endothelial cell barrier function by exposure to 4' -iodo-  $\alpha$  - pyrrolidinononaphenone”  
*Chemico-Biological Interactions*, Vol.364, pp.110052, 2022/09/01
- [44] Sakurai N, Suzuki T, Niikawa T, **Nakano K**, Koyama S.  
“Non-destructive evaluation of fruit firmness and acoustic evaluation of crispiness of persimmon”  
*ISHS Acta Hort.*, Vol.1338, pp.321-327, 2022
- [45] <sup>\*</sup>1Saradia Kar, Raj Kishan Agrahari, **Emiko Yanase**, Yuriko Kobayashi, Hiroyuki Koyama, Sanjib Kumar Panda.  
“Liquid chromatography-mass spectrometry (LC-MS) based metabolomic fingerprinting in contrasting rice varieties for iron (Fe) excess.”  
*Plant Stress*, Vol.4, pp.100078, 2022/04
- [46] Shimizu H, **Iwamoto S**.  
“Problems of Lipid Oxidation in Minced Meat Products for a Ready-made Meal during Cooking, Processing, and Storage ”  
*Reviews in Agricultural Science*, Vol.10, pp.24-35, 2022/03/15
- [47] Shomodder A, **Thammawong M**, **Nakano K**.  
“Postharvest technologies for quality maintenance of sprouts.”  
*Reviews in Agricultural Science*, Vol.10, pp.239-256, 2022
- [48] Sugianti C, **Imaizumi T**, **Thammawong M**, **Nakano K**.  
“Recent postharvest technologies in the banana supply chain”  
*Reviews in Agricultural Science*, Vol.10, pp.123-137, 2022/05

- [49] Sugiura M, Suzuki T, Niikawa T, Ogino H, **Imaizumi T**.  
 “Quick removal of persimmon astringency by medium high hydrostatic pressure treatment”  
*Acta Horticulturae*, Vol.1338, pp.351-356, 2022/05
- [50] Suwa Y, **Yanase E**.  
 “Structure determination and formation mechanism of procyanidin B2 oxidation products”  
*Food Research International*, Vol.117-118, pp.132838, 2022/07/16
- [51] Takahashi M, Komura N, Yoshida Y, Yamaguchi E, Hasegawa A, Tanaka H-N, **Imamura A, Ishida H, Suzuki KGN, Ando H**.  
 “Development of lacto-series ganglioside fluorescent probe using late-stage sialylation and behavior analysis with single-molecule imaging”  
*RSC Chem, Biol.*, Vol.3(7), pp.868-885, 2022/05
- [52] Tonghuan Yu, Ukyo Takahashi, **Hitoshi Iwahashi**.  
 “Transcriptome Analysis of the Influence of High-Pressure Carbon Dioxide on *Saccharomyces cerevisiae* under Sub-Lethal Condition”  
*Journal of fungi (Basel, Switzerland)* , Vol.8(10), pp.1011, 2022
- [53] Tsukuda R, Sugimoto T, Takamizawa K, **Nakamura K**.  
 “Draft Genome Sequence of the Toluene-Degrading, Dissimilatory Sulfate-Reducing Bacterium *Desulforhabdus* sp. Strain TSK”  
*Microbiology resource announcements*, Vol.11(9), pp.e0029522, 2022/09/15
- [54] Ueda H, **Ueno Y**.  
 “Synthesis of 4'-C-(aminoethyl)thymidine and 4'-C-[(N-methyl)aminoethyl]thymidine by a new synthetic route and evaluation of the properties of the DNAs containing the nucleoside analogs”  
*Bioorg. Med. Chem*, Vol.60, pp.116690, 2022/04/15
- [55] Xiwu Jia, **Nakako Katsuno, Takahisa Nishizu**.  
 “Effects of Temperature Fluctuations on the Development of Surface Sugar Crystals and the Quality Characteristics of Dried Persimmon During Frozen Storage”  
*Food and Bioprocess Technology*, Vol.15(3), pp.561-570, 2022/01/29
- [56] **Yabe T**, Maeda N.  
 “Histochemical Analysis of Heparan Sulfate Heparan sulfate (HS) 3-O-sulfotransferase 3-O-sulfotransferase Expression in Mouse Brain”  
*Methods in molecular biology (Clifton, N.J.)*, Vol.2303, pp.719-730, 2022
- [57] Yamaya K, Takei R, Takahashi H, **Katsuno N, Nishizu T**.  
 “Three-dimensional visualization of oil permeation in rice crackers and evaluation of changes in texture”  
*Nippon Shokuhin Kagaku Kogaku Kaishi*, Vol.69(5), pp.213-224, 2022/05/15
- [58] Yoshida Y, Shimizu I, **Shimada A**, Nakahara K, Yanagisawa S, Kubo M, Fukuda S, Ishii C, Yamamoto H, Ishikawa T, Kano K, Aoki J, Hayashi Y, Ikegami R, Katsuumi G, Suda M, Ozaki K, Kashimura T, Izumi D, Yoshida Y, Okuda S, Ohta S, Okamoto S, Minokoshi Y, Oda K, Sasaoka T, Abe M, Sakimura K, Kubota Y, Yoshimura N, Kajimura S, Zuriaga M, Walsh K, Soga T, Minamino T.  
 “Brown adipose tissue dysfunction promotes heart failure via a trimethylamine N-oxide-dependent mechanism”  
*Journal of fungi (Basel, Switzerland)*, Vol.12(1), pp.14883, 2022/09/01
- [59] \*<sup>2</sup>Yoshikawa R, Maeda A, **Ueno Y**, Sakai H, Kimura S, Sawadaishi T, Kohgo S, Yamada K, Mori T.  
 “Intraperitoneal administration of synthetic microRNA-214 elicits tumor suppression in an intraperitoneal dissemination mouse model of canine hemangiosarcoma”  
*Veterinary Research Communications*, Vol.46(2), pp.447-457, 2022/06
- [60] Yujun Zhou, Shuichi Sakamoto, **Yoshihito Ueno**.  
 “Antisense Gapmers with LNA-Wings and (S)-5'-C-Aminopropyl-2'-arabinofluoro-nucleosides Could Efficiently Suppress the Expression of KNTC2.”  
*Molecules (Basel, Switzerland)* , Vol.27(21), pp.7384, 2022/10/30

- [61] Yuki Katsuzaki, Ryo Tsukimura, Akash Chandela, Tokuhiko Chano, **Yoshihito Ueno**.  
 “4’ - C - Aminoethoxy - Modified DNAs Exhibit Increased Nuclease Resistance, Sustained RNase H Activity, and Inhibition of KRAS Gene Expression”  
*Chemistry & Biodiversity*, Vol.19(8), pp.e202200125, 2022/08
- [62] Yuya Kakumu, Thi Minh Tu Nguyen, **Kosei Yamauchi, Tohru Mitsunaga**.  
 “New benzoic acid and caffeoyl derivatives with anti-inflammatory activities isolated from leaves of *Ilex kaushue*.”  
*Natural product research*, Vol.36(12), pp.3013-3021, 2022/06
- [63] Zainal PW, Aurum FS, **Imaizumi T, Thammawong M, Nakano K**.  
 “Applications of mass spectrometry-based metabolomics in postharvest research.”  
*Reviews in Agricultural Science*, Vol.10, pp.56-67, 2022/04
- [64] Zuoqian Li, Lei Jiang, Lingdong Wei, Tomoki Ohno, Yolani Syaputri, Masanori Horie, **Hitoshi Iwahashi**.  
 “Controlling the Microbial Composition during the Fermentation of Ishizuchi-kurocha”  
*Bioscience, biotechnology, and biochemistry*, Vol.86(1), pp.117-124, 2022/01

※1 Also recorded on Course of Agricultural and Environmental Science

※2 Also recorded on Joint Department of Veterinary Medicine

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

- [1] Aoki Y, Zaitzu Y, Kurita M, Phillips RA, **Tadano R**.  
 “Genetic diversity and structure of captive gentoo penguin populations in Japan”  
*Zoo Biology*, Vol.41(3), pp.218-225, 2022/05
- [2] Ayan Sadhukhan, Shiva Sai Prasad, Jayeeta Mitra, Nadeem Siddiqui, Lingaraj Sahoo, **Yuriko Kobayashi, Hiroyuki Koyama**.  
 “How do plants remember drought?”  
*Planta*, Vol.256(1), pp.7, 2022/06/10
- [3] Azumano A, Ueda M, Nomura M, Usui M, Ichinose M, Yanagawa Y, **Kusuda S**, Matsumoto Y, Murata K.  
 “Successful Laparoscopic Oviductal Artificial Insemination in the Endangered Tsushima Leopard Cat (*Prionailurus bengalensis euptilurus*)”  
*Animals*, Vol.12(6), pp.777, 2022/03/19
- [4] Cahyo Wisnu Rubiyanto, **Isao Hirota**.  
 “The Livelihood Transition and Diversification Strategies of Mountain Villages after Road Development: A Case Study in Sone District, Houaphan Province, Northern Laos”  
*Tropical Agriculture and Development*, Vol.66(4), pp.113-129, 2022
- [5] De Castro R, Ohkura S, **Yamamoto A**, Morita Y, Padua AM, Sulabo R.  
 “Concentrations of digestible, metabolizable and net energy in coconut co-products fed to growing pigs”  
*The Philippine Agricultural Scientist*, Vol.105(1), pp.1-9, 2022/03
- [6] De Castro R, Ohkura S, **Yamamoto A**, Padua AM, Sulabo R.  
 “Prediction of amino acid content, gross energy in different co-products of coconut; *Cocos nucifera* L.; processing using chemical composition, physical characteristics”  
*The Philippine Agricultural Scientist*, 2022
- [7] Ebisawa K, **Kusuda S**, Nakayama S, Pai C, Kinoshita R, Koie H.  
 “Effects of rearing methods on feather-damaging behavior and corticosterone metabolite excretion in the peach-faced lovebird (*Agapornis roseicollis* Vieillot)”  
*Journal of Veterinary Behavior*, Vol.54, pp.28-35, 2022/08
- [8] Fairuzia F, Sobir, Maharijaya A, **Ochiai M, Yamada K**.  
 “Longday Photoperiod Accelerates Flowering in Indonesian Non-Flowering Shallot Variety”  
*AGRIVITA, Journal of Agricultural Science*, Vol.44(2), pp.216-224, 2022



- [9] Fairuzia F, Sobir, **Ochiai M**, Maharijaya A, **Yamada K**.  
“Characterization and expression of the partial flowering locus t-2 gene in the shallot (*Allium cepa* var. *Aggregatum*) cultivar 'Lokananta”  
*SABRAO Journal of Breeding and Genetics*, Vol.54(1), pp.88-98, 2022/03
- [10] Fang Jing Li, Ryoji Komura, Chiharu Nakashima, **Masafumi Shimizu**, Koji Kageyama, Haruhisa Suga.  
“Molecular Diagnosis of Thiophanate-Methyl-Resistant Strains of *Fusarium fujikuroi* in Japan”  
*Plant Disease*, Vol.106(2), pp.634-640, 2022/02
- [11] Furukawa Y, Tsukaya H, **Kawakubo N**.  
“Oscillating flower colour changes of *Causonis japonica* (Thunb.) Raf. (Vitaceae) linked to sexual phase changes”  
*Scientific Reports*, Vol.12(1), pp.19682, 2022/12/01
- [12] Hiratsuka T, Makita Y, **Yamamoto YY**.  
“Sequence-based evaluation of promoter context for prediction of transcription start sites in *Arabidopsis* and rice”  
*Sci Rep*, Vol.12(1), pp.6976, 2022/04/28
- [13] **Hiroyuki Koyama**, Chao Feng Huang, Miguel A. Piñeros, Yoko Yamamoto.  
“Editorial: Al-Induced and -Activated Signals in Aluminium Resistance”  
*Frontiers in Plant Science*, Vol.13, 2022/06/22
- [14] Huricha, Kawai M, Inose Y, Yamada F, **Ninomiya S**.  
“Maternal effect on first-year growth of Hokkaido native foals kept outdoors all year round”  
*Animal Science Journal*, Vol.93(1), pp.e13694, 2022
- [15] Huricha, Kawai M, **Ninomiya S**.  
“Relationship between foal daily gain, suckling behavior, and the distance between foals and their mares in the first 40 days of life of Hokkaido native horses kept outdoors year-round.”  
*Animal Science Journal*, Vol.93(1), pp.e13692, 2022
- [16] <sup>3</sup>Ikeda T, Nakamori S, **Ando M**, Shirakawa T, Okamoto T, Suzuki M.  
“Seasonal diel activity patterns of three sympatric ungulates in forested area in central Japan”  
*Mammal Study*, Vol.47(1), pp.47-56, 2022/01
- [17] Itoi F, Miyamoto T, **Himaki T**, Honnma H, Sano M, Ueda J.  
“Importance of real-time measurement of sperm head morphology in intracytoplasmic sperm injection”  
*Zygote*, Vol.30(1), pp.9-16, 2022/02
- [18] Jingyun He, Xinbin Zhou, **Tsutomu Matsui**, Fusheng Li, **Takashi S. T. Tanaka**.  
“Critical reevaluation of an efficient sampling design for assessing soil properties using bootstrap sampling and geostatistical analysis in Japanese large-scale paddy fields”  
*Soil Science and Plant Nutrition*, Vol.68(5-6), pp.536-546, 2022
- [19] Jay Prakash Awasthi, Bedabrata Saha, **Hiroyuki Koyama**, Sanjib Kumar Panda.  
“Quantitative Analysis of Redox Pool (NAD<sup>+</sup>, NADH Content) in Plant Samples Under Aluminum Stress”  
*Bio Protoc*, Vol.12(12), pp.e4444, 2022/06/20
- [20] **Katahata S**, Katoh M, Iio A, Mukai Y.  
“Relationship among light intensity, pigment compositions and photoinhibition in relation to rhodoxanthin accumulation in the gymnosperm *Cryptomeria japonica*”  
*Journal of Forest Research*, Vol.27(4), pp.274-281, 2022/01
- [21] **Koji Tsuchida**, Norio Ishiguro, Fuki Saito-Morooka, Jun-ichi Kojima, Philip Spradbery.  
“Nepotistic colony fission in dense colony aggregations of an Australian paper wasp”  
*Scientific Reports*, Vol.12(1), pp.12868, 2022/07/27
- [22] **Kusuda S**, Funahashi T, Adachi I, Yamamoto H, Nagao E, Matsui K, Akiba Y.  
“Fecal Glucocorticoid Metabolites as a Noninvasive Indicator of Stress in the Tsushima Leopard Cats (*Prionailurus bengalensis euptilurus*): Application to Health Care”  
*Animals*, Vol.12(9), pp.1072, 2022/04/21

- [23] Lamichhane A, Zaki MK, Okiria E, **Noda K**.  
 “Decision-making in climate change adaptation through a cross-sectoral approach: review”  
*IOP Conference Series: Earth and Environmental Science*, Vol.106(1), pp.012034, 2022/04/01
- [24] **Masafumi Shimizu**, Hushna Ara Naznin, Ayaka Hieno.  
 “The Significance of Mycoparasitism by *Streptomyces* sp. MBCN152-1 for Its Biocontrol Activity against *Alternaria brassicicola*”  
*Microbes and Environments*, Vol.37(3), pp.ME22048, 2022
- [25] Masahiro Nakamura, Chisato Terada, Kinya Ito, Kazuaki Matsui, Shigeru Niwa, Masae Ishihara, Tanaka Kenta, Tetsuro Yoshikawa, Taku Kadoya, Tsutomu Hiura, Hiroyuki Muraoka, Ken Ishida, Naoki Agetsuma, Ryosuke Nakamura, Hitoshi Sakio, Masahiro Takagi, Akira S. Mori, Megumi K. Kimura, Hiroko Kurokawa, Tsutomu Enoki, Tatsuyuki Seino, Atsushi Takashima, Hajime Kobayashi, Kazuho Matsumoto, Koichi Takahashi, Ryunosuke Tateno, Tomohiro Yoshida, Tatsuro Nakaji, Masayuki Maki, Kazutaka Kobayashi, Karibu Fukuzawa, Kazuhiko Hoshizaki, Kazuhide Ohta, Keito Kobayashi, Motohiro Hasegawa, Satoshi N. Suzuki, Michinori Sakimoto, Yoichiro Kitagawa, Akiko Sakai, Hirofumi Kondo, Tomoaki Ichie, Koji Kageyama, Ayaka Hieno, **Shogo Kato**, Tatsuya Otani, Yasuhiro Utsumi, Tomonori Kume, Kosuke Homma, Koju Kishimoto, Kazuhiko Masaka, Kenta Watanabe, Motomu Toda, Dai Nagamatsu, Yuko Miyazaki, Tamon Yamashita, Naoko Tokuchi.  
 “Evaluating the soil microbe community-level physiological profile using EcoPlate and soil properties at 33 forest sites across Japan”  
*Ecological Research*, Vol.37(3), pp.432-445, 2022/05
- [26] Matsumura M, Nomoto M, Itaya T, Aratani Y, Iwamoto M, Matsuura T, Hayashi Y, Mori T, Skelly M, **Yamamoto YY**, Kinoshita T, Mori I, Suzuki T, Betsuyaku S, Spoel S, Toyota M, Tada Y.  
 “Mechanosensory trichome cells evoke a mechanical stimuli-induced immune response in *Arabidopsis thaliana*”  
*Nat Commun*, Vol.13(1), pp.1216, 2022/03/08
- [27] Matsuo S, Suzuki M, **Shimazu T**.  
 “Proposal of Agro-Industrial Integration Heat Transport System Using High-Performance Medium for the Realization of a Sustainable Society”  
*Energies*, Vol.15(3), pp.1211, 2022/02/07
- [28] Mayumi Yoshimoto, Minehiko Fukuoka, Yasuhiro Tsujimoto, **Tsutomu Matsui**, Kazuhiro Kobayasi, Kazuki Saito, Pepijn A.J. van Oort, Baba I.Y. Inusah, Chenniappan Vijayalakshmi, Dhashnamurthi Vijayalakshmi, W.M.W. Weerakoon, L.C. Silva, Tin Tin Myint, Zar Chi Phyto, Xiaohai Tian, Huu-Sheng Lur, Chwen-Ming Yang, Lee Tarpley, Norvie L. Manigbas, Toshihiro Hasegawa.  
 “Monitoring canopy micrometeorology in diverse climates to improve the prediction of heat-induced spikelet sterility in rice under climate change”  
*Agricultural and Forest Meteorology*, Vol.316, pp.108860, 2022/04/01
- [29] McBride SD, Roberts K, Hemmings AJ, **Ninomiya S**, Parker MO.  
 “The impulsive horse: Comparing genetic, physiological and behavioral indicators to those of human addiction.”  
*Physiology & Behavior*, Vol.254, pp.113896, 2022/10/01
- [30] Mitsuishi H, Natsubori E, **Otsuka T**, **Yayota M**.  
 “High  $\beta$ -carotene concentration in plasma enhances cyclic progesterone production in nonpregnant Japanese Black cows”  
*Animal Science Journal*, Vol.93(1), pp.e13782, 2022/11
- [31] Mori C, **Matsumura S**.  
 “Development and validation of simultaneous identification of 26 mammalian and poultry species by a multiplex assay”  
*International Journal of Legal Medicine*, Vol.136(1), pp.1-12, 2022/01

- [32] Muhamad Khoiru Zaki, **Keigo Noda**.  
“A Systematic Review of Drought Indices in Tropical Southeast Asia”  
*Atmosphere*, Vol.13(5), pp.833, 2022/05/19
- [33] Muhamad Khoiru Zaki, **Keigo Noda**, **Kengo Ito**, Komariah Komariah, Sumani Sumani, Masateru Senge.  
“Reply to Karjanto, N. Revisiting Indigenous Wisdom of Javanese Pranata mangsa. Comment on “Zaki et al. Adaptation to Extreme Hydrological Events by Javanese Society through Local Knowledge. Sustainability 2020, 12, 10373”  
*Sustainability (Switzerland)* , Vol.14(16), pp.9849, 2022/08
- [34] Nakajima N, Doi K, Tamiya S, **Yayota M**.  
“Potential impact of botanically diverse pasture on the nutritional, physiological, and immunological status of grazing cows”  
*Grassland Science*, Vol.68(2), pp.155-164, 2022/04
- [35] Nakamori S, **Ando M**.  
“Trends in Habitat Use between Sympatric Sika Deer and Japanese Serow as Revealed by Camera Traps”  
*Mammal Study*, Vol.47(3), pp.165-176, 2022/04/20
- [36] Nishioka T, Suga H, **Shimizu M**.  
“The Stimulation of Indigenous Bacterial Antagonists by  $\gamma$ -Glutamyl-S-Allyl-L-Cysteine Increases Soil Suppressiveness to Fusarium Wilt.”  
*Applied and environmental microbiology*, Vol.29, pp.e0155422, 2022/11/29
- [37] Nodera M, Zaki MK, Srisutham M, Yoshida K, **Noda K**.  
“Farmers' perception and objective validation of the impact of climate change on farming activities in Northeast Thailand.”  
*IOP Conference Series: Earth and Environmental Science*, Vol.1016(1), pp.012041
- [38] Okiria E, Okazawa H, **Noda K**, Kobayashi Y, Suzuki S, Yamazaki Y.  
“A Comparative Evaluation of Lumped and Semi-Distributed Conceptual Hydrological Models: Does Model Complexity Enhance Hydrograph Prediction?”  
*Hydrology*, Vol.9(5), pp.89, 2022/05/15
- [39] **Otsuka T**, Le HT, Thein ZL, Ihara H, Sato F, Nakao T, Kohsaka A.  
“Deficiency of the circadian clock gene *Rev-erb $\alpha$*  induces mood disorder-like behaviours and dysregulation of the serotonergic system in mice”  
*Physiology & Behavior*, Vol.256, pp.113960, 2022/11/01
- [40] Phuong Hong Le, Shin-ichi Nishimura, **Tatsuro Nishiyama**, Chen Fang, Thai Canh Nguyen.  
“Seismic Deformation of Earth Dams: A State-of-the-art Review”  
*Reviews in Agricultural Science*, Vol.10, pp.138-154, 2022
- [41] Richa Srivastava, **Yuriko Kobayashi**, **Hiroyuki Koyama**, Lingaraj Sahoo.  
“Overexpression of cowpea NAC transcription factors promoted growth and stress tolerance by boosting photosynthetic activity in Arabidopsis”  
*Plant Science*, Vol.319, 111251, 2022/06
- [42] Sanjeev Kumar, J. Muthuvel, Ayan Sadhukhan, **Yuriko Kobayashi**, **Hiroyuki Koyama**, Lingaraj Sahoo.  
“Enhanced osmotic adjustment, antioxidant defense, and photosynthesis efficiency under drought and heat stress of transgenic cowpea overexpressing an engineered DREB transcription factor”  
*Plant Physiology and Biochemistry*, Vol.193, pp.1-13, 2022/12/15
- [43] <sup>\*</sup>1Saradia Kar, Raj Kishan Agrahari, Emiko Yanase, **Yuriko Kobayashi**, **Hiroyuki Koyama**, Sanjib Kumar Panda.  
“Liquid chromatography-mass spectrometry (LC-MS) based metabolomic fingerprinting in contrasting rice varieties for iron (Fe) excess.”  
*Plant Stress*, Vol.4, pp.100078, 2022/04

- [44] Satoru Hoshino, Satoru Seino, Akinori Azumano, Augustine Tuuga, Senthilvel K. S. S. Nathan, Diana A. Ramirez Saldivar, Benoit Goossens, Milena Salgado-Lynn, Ikki Matsuda, **Masato Yayota**.  
“Modifying the diets of captive proboscis monkeys in a temperate zoo to reduce weight loss and renal disease”  
*Primates*, Vol.64, pp.123-141, 2022/11/10
- [45] **Shimizu M**, Naznin HA, Hieno A.  
“The Significance of Mycoparasitism by *Streptomyces* sp. MBCN152-1 for Its Biocontrol Activity against *Alternaria brassicicola*”  
*Microbes Environ*, Vol.37(3), pp.ME22048, 2022
- [46] Shunpei Kakimoto, Taro Mieno, **Takashi S. T. Tanaka**, David S. Bullock.  
“Causal Forest Approach for Site-specific Input Management via On-farm Precision Experimentation”  
*Computers and Electronics in Agriculture*, Vol.199, pp.107164, 2022/08
- [47] Suga H, Hayashi M, Kushiro M, Miyano N, Inoue H, Nakajima K, Kawakami T, Tonooka T, Nakajima T, **Shimizu M**, Kageyama K.  
“A Novel Medium for Isolating Two Japanese Species in the *Fusarium graminearum* Species Complex and a Dipstick DNA Chromatography Assay for Species Identification and Trichothecene Typing”  
*J.fungi*, Vol.8(10), pp.1048, 2022
- [48] Supriyono Loekito, Auliana Afandi, **Naomasa Nishimura**, **Hiroyuki Koyama**, Masateru Senge.  
“The Effects of Calcium Fertilizer Sprays during Fruit Development Stage on Pineapple Fruit Quality under Humid Tropical Climate”  
*International Journal of Agronomy*, Vol.2022(2), pp.1-9, 2022/01
- [49] Supriyono Loekito, Auliana Afandi, **Naomasa Nishimura**, **Hiroyuki Koyama**, Masateru Senge.  
“Gypsum supplies calcium to Ultisol soil and its effect on *Phytophthora nicotianae*, pineapple (*Ananas comosus*) growth, yield and fruit quality in lower single row bed under climate change issue”  
*AIMS Agriculture and Food*, Vol.7(3), pp.721-736, 2022
- [50] Supriyono Loekito, Auliana Afandi, **Naomasa Nishimura**, **Hiroyuki Koyama**, Masateru Senge.  
“Potential of Gypsum Application One Month before Artificial Flower Induction to Improve the Quality of Pineapple Fruit in Ultisol Soil in Humid Tropical Climate”  
*International Journal of Agriculture and Biology*, Vol.28(3), pp.141-148, 2022
- [51] Supriyono Loekito, Auliana Afandi, **Naomasa Nishimura**, **Hiroyuki Koyama**, Masateru Senge.  
“Study on Soil Properties and Species Conformity of *Phytophthora* Species in a Pineapple Field”  
*International Journal of Agriculture and Biology*, Vol.27(5), pp.361-370, 2022
- [52] **Takashi S. T. Tanaka**, **Tsutomu Matsui**.  
“Explainable machine learning for site-specific yield response modeling using Moran’s eigenvector maps”  
*Proceedings of #OFE2021*, pp.357-362, 2022
- [53] **Tomoko Okamoto**, Glenn P. Svensson, Ryutaro Goto, Atsushi Kawakita, Makoto Kato.  
“Nocturnal emission and post-pollination change of floral scent in the leafflower tree, *Glochidion rubrum*, exclusively pollinated by seed-parasitic leafflower moths”  
*PLANT SPECIES BIOLOGY*, Vol.37(2), pp.197-208, 2022/03
- [54] Tsutomu Ishimaru, Khin Thandar Hlaing, Ye Min Oo, Tin Mg Lwin, Kazuhiro Sasaki, Patrick D. Lumanglas, Eliza-Vie M. Simon, Tin Tin Myint, Aris Hairmansis, Untung Susanto, Bharathi Ayyenar, Raveendran Muthurajan, Hideyuki Hirabayashi, Yoshimichi Fukuta, Kazuhiro Kobayasi, **Tsutomu Matsui**, Mayumi Yoshimoto, Than Myint Htun.  
“An early-morning flowering trait in rice can enhance grain yield under heat stress field conditions at flowering stage”  
*Field Crops Research*, Vol.277, pp.108400, 2022/03/01
- [55] Umi Munawaroh, Komariah Komariah, Dwi Priyo Ariyanto, Muhamad Khoiru Zaki, **Keigo Noda**.  
“Estimates of methane and nitrous oxide emission from a rice field in Central Java, Indonesia, based on the DeNitrification DeComposition model”  
*SAINS TANAH - Journal of Soil Science and Agroclimatology*, Vol.19(1), pp.1, 2022/01/28

- [56] Urita C, **Kusuda S**, Rooney N.  
 “Physiological and Behavioural Assessments of Stress Levels in Owls Housed at Owl Cafés”  
*Animal Welfare*, Vol.31(3), pp.283-292, 2022/08
- [57] Xinbin Zhou, Gerard B.M. Heuvelink, Yusuke Kono, **Tsutomu Matsui, Takashi S.T. Tanaka**.  
 “Using linear mixed-effects modeling to evaluate the impact of edaphic factors on spatial variation in winter wheat grain yield in Japanese consolidated paddy fields”  
*European Journal of Agronomy*, Vol.133, pp.126447, 2022/02
- [58] Yuto Tashiro, Muneoki Yoh, Vladimir Shesterkin, Takayuki Shiraiwa, **Takeo Onishi**, Daisuke Naito.  
 “Importance of Permafrost Wetlands as Dissolved Iron Source for Rivers in the Amur-Mid Basin”  
*Earth and Space Science*, 2022/11/22

※1 Also recorded on Course of Applied Life Science

※3 Also recorded on Joint Department of Veterinary Medicine, Research Center for Wildlife Management

#### 【Joint Department of Veterinary Medicine】

- [1] Ahmed Magdy Khalil, Isshu Kojima, Wataru Fukunaga, Misuzu Okajima, Sumire Mitarai, Yoshikazu Fujimoto, Tsutomu Matsui, Masakazu Kuwahara, **Tatsunori Masatani**, Kosuke Okuya, Makoto Ozawa.  
 “Improved method for avian influenza virus isolation from environmental water samples”  
*Transboundary and Emerging Diseases*, Vol.69(5), pp.e2889-e2897, 2022/09
- [2] Asako Ando, Tatsuya Matsubara, Shingo Suzuki, Noriaki Imaeda, **Masaki Takasu**, Atsuko Shigenari, Asuka Miyamoto, Shino Ohshima, Yoshie Kametani, Takashi Shiina, Jerzy K Kulski, Hitoshi Kitagawa.  
 “Genetic Association between Farrowing Rates and Swine Leukocyte Antigen Alleles or Haplotypes in Microminipigs”  
*Cells*, Vol.11(19), pp.3138, 2022/10/05
- [3] Badr Y, Noreldin AE, Elewa YHA, Ahmed MS, **Inoshima Y**, Baker NM, Aamer WN, Abas OM, Nayel M, Rahman MM, Elgendy E, Saleh AG, El-Neweshy MS.  
 “Cellular infiltration, cytokines, and histopathology of skin lesions associated with different clinical forms and stages of naturally occurring lumpy skin disease in cattle”  
*Comparative Immunology, Microbiology and Infectious Diseases*, Vol.90-91, pp.101894, 2022/11
- [4] Badr Y, Rahman MM, Ohno Y, Ishijima K, Maeda K, Kohyama K, Kamatari YO, Shimizu K, **Okada A, Inoshima Y**.  
 “A new enzyme-linked immunosorbent assay for serological diagnosis of seal parapoxvirus infection in marine mammals”  
*Journal of Veterinary Research*, Vol.66(1), pp.43-52, 2022/03
- [5] Brice AM, Rozario AM, Rawlinson SM, David CT, Wiltzer-Bach L, Jans DA, **Ito N**, Bell TDM, Moseley GW.  
 “Lyssavirus P Protein Isoforms Diverge Significantly in Subcellular Interactions Underlying Mechanisms of Interferon Antagonism”  
*J Virol*, Vol.96(20), pp.e0139622, 2022/10/26
- [6] Eiji Naito, Kohei Nakata, **Hiroki Sakai**, Osamu Yamato, Md Shafiqul Islam, **Sadatoshi Maeda, Hiroaki Kamishina**.  
 “Diffusion tensor imaging-based quantitative analysis of the spinal cord in Pembroke Welsh Corgis with degenerative myelopathy”  
*The Journal of veterinary medical science*, Vol.84(2), pp.199-207, 2022
- [7] Esaki M, Ito G, Tokorozaki K, Matsui T, **Masatani T**, Amano K, Ozawa M.  
 “Prevalence and organ tropism of crane - associated adenovirus 1 in cranes overwintering on the Izumi plain, Japan”  
*Transboundary and Emerging Diseases*, Vol.69(5), pp.e2800-e2807, 2022/09

- [8] Fujii Y, Hirayama M, **Nishiyama S**, Takahashi T, Okajima M, Izumi F, Takehara K, **Masatani T**, Sugiyama M, **Ito N**.  
“Characterization of an avian rotavirus A strain isolated from a velvet scoter (*Melanitta fusca*): implication for the role of migratory birds in global spread of avian rotaviruses”  
*Journal of General Virology*, Vol.103(2), 2022/02/17
- [9] Fujii Y, **Iwasaki R**, Ikeda S, Chimura S, Goto M, Yoshizaki K, **Sakai H**, **Ito N**, **Mori T**.  
“Gastrointestinal stromal tumour lacking mutations in the KIT and PDGFRA genes in a cat”  
*J Small Anim Pract*, Vol.63(3), pp.239-243, 2022/03
- [10] Fujii Y, **Masatani T**, **Nishiyama S**, Okajima M, Izumi F, Okazaki K, Sakoda Y, Takada A, Ozawa M, Sugiyama M, **Ito N**.  
“Molecular characterisation of a novel avian rotavirus A strain detected from a gull species (*Larus sp.*)”  
*Journal of General Virology*, Vol.103(10), pp.001792, 2022/10/12
- [11] Fujii Y, Uno A, Takitani S, **Iwasaki R**, Yoshikawa R, Okajima M, Makino Y, **Ito N**, **Mori T**.  
“A frameshift variant in the EXT1 gene in a feline leukemia virus-negative cat with osteochondromatosis”  
*Animal genetics*, Vol.53(5), pp.696-699, 2022/10
- [12] Fukuda S, Kugita M, Higashimoto Y, Shioyama K, Tsujikawa H, Moriguchi K, **Ito N**, Sugiyama M, Nagao S, Murata T, Taniguchi K, Komoto S.  
“Rotavirus incapable of NSP6 expression can cause diarrhea in suckling mice.”  
*J Gen Virol.*, Vol.103(5), pp.001745, 2022/05
- [13] Goto M, **Hirata A**, **Murakami M**, Minami N, **Sakai H**.  
“What is your diagnosis? Subcutaneous mass on the head of a dog ”  
*Veterinary clinical pathology*, Vol.51(1), pp.153-156, 2022/03
- [14] Goto M, Owaki K, **Hirata A**, **Murakami M**, **Sakai H**.  
“Extraskeletal osteosarcoma associated with two different types of synthetic fibers derived from a surgical swab in a dog.”  
*The Journal of veterinary medical science*, Vol.84(8), pp.1056-1060, 2022/08/01
- [15] Goto S, **Iwasaki R**, **Sakai H**, **Mori T**.  
“Combined Hypofractionated Radiotherapy and Chemotherapy Versus Hypofractionated Radiotherapy Alone for Cats with Localized Sinonasal Lymphoma”  
*Journal of the American Animal Hospital Association*, Vol.58(5), pp.254-261, 2022/09/01
- [16] Hieu Duc Duong, Yuji Taniguchi, **Yasuhiro Takashima**, Satoshi Sekiguchi, Khin Myo Aye, Parnian Ahmadi, Linh Khanh Bui, Takao Irie, Eiji Nagayasu, Ayako Yoshida.  
“Diagnostic value of recombinant nanoluciferase fused *Toxoplasma gondii* antigens in Luciferase-linked Antibody Capture Assay (LACA) for *Toxoplasma* infection in pigs”  
*The Journal of veterinary medical science*, Vol.84(7), pp.905-913, 2022
- [17] Hiraoka M, Takashima S, Wakihara Y, Kamatari YO, Shimizu K, **Okada A**, **Inoshima Y**.  
“Identification of potential mRNA biomarkers in milk small extracellular vesicles of enzootic bovine leukosis cattle”  
*Viruses*, Vol.14(5), pp.1022, 2022/05/11
- [18] **Hiroaki Kamishina**, Yukiko Nakano, Kohei Nakata, Shintaro Kimura, Yuta Nozue, Adam G Drury, **Sadatoshi Maeda**.  
“Microendoscopic Dorsal Laminectomy for Multi-Level Cervical Intervertebral Disc Protrusions in Dogs”  
*Veterinary sciences*, Vol.9(1), pp.18, 2022/01/05
- [19] Hirohito Ogawa, Kenji Ohya, Raphael Ayizanga, Hiroko Miyamoto, Asako Shigeno, Masao Yamada, **Yasuhiro Takashima**, Miho Inoue-Murayama, Ayato Takada, Boniface Baboreka Kayang.  
“Detection of anti-ebolavirus antibodies in Ghanaian pigs.”  
*The Journal of veterinary medical science*, Vol.84(11), pp.1491-1494, 2022/11/01
- [20] Homma T, Sohel MSH, **Onouchi S**, **Saito S**.  
“Morphometric study of the vestibuloauditory organ of the African clawed frog, *Xenopus laevis*”  
*Anat Histol Embryol.*, Vol.51(4), pp.514-523, 2022/07

- [21] Horii K, Sawamura T, Onishi A, Yuki N, Naitou K, **Shiina T, Shimizu Y**.  
 “Contribution of sex hormones to the sexually dimorphic response of colorectal motility to noxious stimuli in rats.”  
*American journal of physiology. Gastrointestinal and liver physiology*, Vol.323(1), pp.G1-G8, 2022/07
- [22] Horii Y, Okadera K, **Miyawaki S, Shiina T, Shimizu Y**.  
 “*Suncus murinus* as a novel model animal that is suitable for elucidating the mechanism of daily torpor”  
*Biomed. Res.*, Vol.43(2), pp.53-57, 2022
- [23] <sup>4</sup>Ikeda T, Higashide D, Suzuki T, **Asano M**.  
 “Efficient oral vaccination program against classical swine fever in wild boar population”  
*Preventive Veterinary Medicine*, Vol.205, pp.105700, 2022/08
- [24] <sup>3</sup>Ikeda T, Nakamori S, Ando M, Shirakawa T, Okamoto T, **Suzuki M**.  
 “Seasonal diel activity patterns of three sympatric ungulates in forested area in central Japan”  
*Mammal Study*, Vol.47(1), pp.47-56, 2022/01
- [25] <sup>5</sup>Ikushima S, Kuninaga N, Ikeda T, Okamoto T, **Asano M, Suzuki M**.  
 “Evaluation of the effect of culling on browse damage by the Japanese Serow in Gifu Prefecture, Japan”  
*Human-Wildlife Interactions*, Vol.16(1), pp.29-43, 2022
- [26] Ishigamori R, Naruse M, **Hirata A**, Maru Y, Hippo Y, Imai T.  
 “The potential of organoids in toxicologic pathology: Histopathological and immunohistochemical evaluation of a mouse normal tissue-derived organoid-based carcinogenesis model”  
*J Toxicol Pathol*, Vol.35(3), pp.211-223, 2022/07
- [27] Isshu Kojima, Koji Onomoto, Wenjie Zuo, Makoto Ozawa, Kosuke Okuya, Kiyotada Naitou, Fumiki Izumi, Misuzu Okajima, Takuro Fujiwara, Naoto Ito, Mitsutoshi Yoneyama, Kentaro Yamada, Akira Nishizono, Makoto Sugiyama, Takashi Fujita, **Tatsunori Masatani**.  
 “The Amino Acid at Position 95 in the Matrix Protein of Rabies Virus Is Involved in Antiviral Stress Granule Formation in Infected Cells”  
*Journal of Virology*, Vol.96(18), pp.e0081022, 2022/09/28
- [28] Itakura Y, Tabata K, Morimoto K, **Ito N**, Chambaro HM, Eguchi R, Otsuguro KI, Hall WW, Orba Y, Sawa H, Sasaki M.  
 “Glu 333 in rabies virus glycoprotein is involved in virus attenuation through astrocyte infection and interferon responses”  
*iScience*, Vol.25(4), pp.104122, 2022/04/15
- [29] Iwasa N, **Takashima S**, Iwasa T, Iwasa K, Kumazawa R, Nomura S, Asami S, Shimizu M, **Kobatake Y, Nishii N**.  
 “Effect of age, sex, and breed on serum cystatin C and creatinine concentrations in dogs”  
*Vet Res Commun*, Vol.46(1), pp.183-188, 2022/02
- [30] Ji S, Ceylan O, Ma Z, Galon EM, Zafar I, Li H, Hasegawa Y, Sevinc M, **Masatani T**, Iguchi A, Kawase O, Shirafuji R, Asada M, Sevinc F, Xuan X.  
 “Protozoan and rickettsial pathogens in ticks collected from severely infested cattle from Turkey”  
*Pathogens*, Vol.11(5), pp.500, 2022/04/22
- [31] Kanda M, Fukuda S, Hamada N, **Nishiyama S, Masatani T**, Fujii Y, Izumi F, Okajima M, Taniguchi K, Sugiyama M, Komoto S, **Ito N**.  
 “Establishment of a Reverse Genetics System for Avian Rotavirus A Strain PO-13.”  
*J Gen Virol.*, Vol.103(6), pp.001760, 2022/06
- [32] Kanei T, Iwata M, **Kamishina H**, Mizuno T, **Maeda S**.  
 “Expression and functional analysis of chemokine receptor 7 in canine lymphoma cell lines”  
*The Journal of veterinary medical science*, Vol.84(1), pp.25-30, 2022
- [33] Kaho Takahashi, Shintaro Kimura, James K Chambers, Yukiko Nakano, Takeshi Ishikawa, **Sadatoshi Maeda, Hiroaki Kamishina**.  
 “Case Report: Surgical Treatment of Type IV Spinal Dermoid Sinus in a Shiba Inu”  
*Frontiers in veterinary science*, Vol.9, pp.849025, 2022/03/23

- [34] Karin Sakamoto, James K. Chambers, Junpei Fujimoto, **Sadatoshi Maeda**, Hiroaki Kamishina.  
 “Surgical management of subependymoma in a cat”  
*Veterinary Record Case Reports*, Vol.10(4), pp.e422, 2022/12
- [35] Kawada H, Shoda S, Miyoshi T, **Takasu M**, Tanahashi Y, **Iwasaki R**, Nagata S, Kawai N, Noda Y, Goshima S, Hyodo F, **Mori T**, Matsuo M.  
 “Radiological Arterial Anatomy in Mature Microminipigs as a Pre-clinical Research Model in Interventional Radiology”  
*Cardiovasc Intervent Radiol*, Vol.45(5), pp.705-708, 2022/05
- [36] Kitamura Y, Saito T, Tanaka E, **Takashima Y**.  
 “A serological survey of porcine reproductive and respiratory syndrome virus in wild boar in Gifu Prefecture, Japan”  
*Journal of Veterinary Medical Science*, Vol.84(10), pp.1406-1409, 2022
- [37] Kohyama K, **Inoshima Y**, Kiyota M.  
 “Fluctuations in serum steroid hormone concentrations and body mass during growth and sexual maturation in captive northern fur seals (*Callorhinus ursinus*).”  
*The Journal of Veterinary Medical Science*, Vol.84(1), pp.171-180, 2022/01/24
- [38] Maeda A, **Murakami M**, **Iwasaki R**, Goto S, Kitagawa K, **Sakai H**, **Mori T**.  
 “Outcome of localized bile duct carcinoma in six dogs treated with liver lobectomy”  
*J Am Anim Hosp Assoc*, Vol.58(4), pp.189-193, 2022/07/01
- [39] Maeda M, Ochiai K, Michishita M, Morimatsu M, Sakai H, Kinoshita N, Sakaue M, Onozawa E, Azakami D, Yamamoto M, Ishioka K, Sadahira T, Watanabe M, Tanaka Y.  
 “In vitro anticancer effects of alpelisib against PIK3CA-mutated canine hemangiosarcoma cell lines”  
*Oncology reports*, Vol.47(4), pp.84, 2022/04
- [40] Maki S, Islam MS, Tltoh T, Nurimoto M, Yabuki A, Furusawa Y, Kamishina H, **Kobatake Y**, Rakib TM, Tacharina MR, Yamato O.  
 “Molecular Epidemiological Survey for Degenerative Myelopathy in German Shepherd Dogs in Japan: Allele Frequency and Clinical Progression Rate”  
*Animals*, Vol.12(13), pp.1647, 2022/06
- [41] Manokaran G, Audsley MD, Funakoda H, David CT, Garnham KA, Rawlinson SM, Deffrasnes C, **Ito N**, Moseley GW.  
 “Deactivation of the antiviral state by rabies virus through targeting and accumulation of persistently phosphorylated STAT1”  
*PLoS Pathog.*, Vol.18(5), pp.e1010533, 2022/05/16
- [42] Mohamed Elbadawy, Kodai Fujisaka, Haru Yamamoto, Ryouichi Tsunedomi, Hiroaki Nagano, Hiromi Ayame, Yusuke Ishihara, **Takashi Mori**, Daigo Azakami, Tsuyoshi Uchide, Ryuji Fukushima, Amira Abugomaa, Masahiro Kaneda, Hideyuki Yamawaki, Yuta Shinohara, Tsutomu Omatsu, Tetsuya Mizutani, Tatsuya Usui, Kazuaki Sasaki  
 “Establishment of an experimental model of normal dog bladder organoid using a three-dimensional culture method”  
*Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie*, Vol.151, pp.113105, 2022/07
- [43] **Murakami M**, Yonemaru K, Goto M, Owaki K, **Hirata A**, Kunihiro S, **Sakai H**.  
 “Feline uterine carcinosarcoma infiltrated with osteoclast-like giant cells”  
*The Journal of veterinary medical science*, Vol.84(12), pp.1579-1584, 2022/11/18
- [44] Muramoto M, Yamakuchi Y, Konishi R, Koudatsu S, Tomikura H, Fukuda K, Kuriyama S, Kurokawa Y, **Masatani T**, Tamaki H, Fujita A.  
 “Essential roles of phosphatidylinositol 4-phosphate phosphatases Sac1p and Sjl3p in yeast autophagosome formation”  
*Biochim Biophys Acta Mol Cell Biol Lipids.*, Vol.1867(9), pp.159184, 2022/09



- [45] Naitou K, Iwashita H, Ueda HH, Shiraishi M, Fujimoto Y, Horii K, Sawamura T, **Shiina T, Shimizu Y**.  
“Intrathetically administered substance P activated the spinal defecation center and enhanced colorectal motility in anesthetized rats”  
*American journal of physiology. Gastrointestinal and liver physiology*, Vol.323(1), pp.G21-G30, 2022/07
- [46] Nakanishi R, Takashima S, Wakihara Y, Kamatari YO, Kitamura Y, Shimizu K, **Okada A, Inoshima Y**.  
“Comparing microRNA in milk small extracellular vesicles among healthy cattle and cattle at high risk for bovine leukemia virus transmission”  
*Journal of Dairy Science*, Vol.105(6), pp.5370-5380, 2022/06
- [47] Neriya Y, Kojima S, Sakiyama A, Kishimoto M, Iketani T, Watanabe T, Abe Y, Shimoda H, **Nakagawa K, Koma T, Matsumoto Y**.  
“A comprehensive list of the Bunyavirales replication promoters reveals a unique promoter structure in Nairoviridae differing from other virus families”  
*Scientific reports*, Vol.12(1), pp.13560, 2022/08/09
- [48] **Nishiyama S**, Hirano M, Muto M, Kambara M, **Ito N**, Kobayashi S, Kariwa H, Yoshii K.  
“Y-shaped RNA secondary structure of a noncoding region in the genomic RNA of tick-borne encephalitis virus affects pathogenicity”  
*Microbiol Immunol.*, Vol.66(5), pp.234-237, 2022/05
- [49] Nomura S, **Kobatake Y, Takashima S, Kamishina H**, Urushitani M, **Nishii N**.  
“The inhibitory effects of MIF on accumulation of canine degenerative myelopathy-associated mutant SOD1 aggregation”  
*Res Vet Sci*, Vol.147, pp.7-11, 2022/10
- [50] Norikazu Koyasu, Fuminori Hyodo, Ryota Iwasaki, Hinako Eto, Abdelazim Elsayed Elhelaly, Hiroyuki Tomita, Shinichi Shoda, **Masaki Takasu, Takashi Mori**, Masaharu Murata, Akira Hara, Yoshifumi Noda, Hiroki Kato, Masayuki Matsuo.  
“Spatiotemporal imaging of redox status using in vivo dynamic nuclear polarization magnetic resonance imaging system for early monitoring of response to radiation treatment of tumor”  
*Free radical biology & medicine*, Vol.179, pp.170-180, 2022/02/01
- [51] Ogawa H, Ohya K, Raphael A, Miyamoto H, Shigeno A, Yamada M, **Takashima Y**, Inoue-Murayama M, Takada A, Kayang B.  
“Detection of anti-ebolavirus antibodies from Ghanaian pigs”  
*J. Vet. Med. Sci.*, Vol.84(11), pp.1491-1494, 2022
- [52] **Okada A**, Tsuchida M, Rahman MM, **Inoshima Y**.  
“Two-round treatment with propidium monoazide completely inhibits the detection of dead *Campylobacter* spp. cells by quantitative PCR”  
*Frontiers in Microbiology*, Vol.13, pp.801961, 2022/04/25
- [53] **Onouchi S**, Yasuda H, **Saito S**, Atoji Y.  
“Morphological features of the mouse duodenocolic fold in foetus and adult”  
*Journal of anatomy*, Vol.240(3), pp.516-527, 2022/03
- [54] **Onouchi S**, Yoshida T, **Mori T, Saito S**, Atoji Y.  
“Morphological variations in the transverse foramen of the axis in Japanese serows (*Capricornis crispus*)”  
*Anat Histol Embryol.*, Vol.51(5), pp.602-610, 2022/09
- [55] Otsuka N, **Hirata A**, Yonemaru K, Goto M, **Murakami M, Sakai H**.  
“Benign Mixed Mammary Tumour with Hepatoid Gland Differentiation in a Dog”  
*Journal of comparative pathology*, Vol.197, pp.35-39, 2022/09
- [56] Otsuka N, Ishimaru K, **Murakami M**, Goto M, **Hirata A, Sakai H**.  
“The immunohistochemical detection of peroxiredoxin 1 and 2 in canine spontaneous vascular endothelial tumors”  
*The Journal of veterinary medical scienc*, Vol.84(7), pp.914-923, 2022/07/01

- [57] Prado ICB, Capuno LXB Jr, Collera PD, Cabralda APD, De Ramos KAS, Bernardo JMG, Divina BP, **Masatani T**, Tanaka T, Galay RL.  
“Molecular Detection and Characterization of *Babesia* and *Theileria* in Cattle and Water Buffaloes from Southern Luzon, Philippines”  
*Microorganisms*, Vol.10(4), pp.678, 2022/03/22
- [58] Saeki S, Tokutake K, **Takasu M**, Kurimoto S, Asami Y, Onaka K, Saeki M, Hirata H.  
“Functional Reconstruction of Denervated Muscle by Xenotransplantation of Neural Cells from Porcine to Rat”  
*International journal of molecular sciences*, Vol.23(15), pp.8773, 2022/08/07
- [59] Saito H, **Nakagawa K**, Kitamura Y, Kuwata K, Tanaka E.  
“Molecular survey of infectious bronchitis virus on poultry farms in Gifu Prefecture, Japan from 2021 to 2022 by RT-PCR with an enhanced level of detection sensitivity for the S1 gene”  
*The Journal of veterinary medical science*, Vol.84(9), pp.1157-1163, 2022/09/01
- [60] Saito T, Asami S, Sakakibara H, Iwatake Y, Hayashi K, **Kitoh K**, **Takashima Y**.  
“Contact between *Mesocestoides vogae* tetrathyridia induces their division”  
*Parasitology International*, Vol.90, pp.102609, 2022/10
- [61] Saito T, Hayashi K, Suse T, Kuroki T, Shibahara T, **Takashima Y**.  
“Morphologic Observation and First Molecular Characterization of *Encyclometra japonica* (Digenea: Encyclometridae) in the Digestive Tract of Wild Tiger Keelbacks (*Rhabdophis tigrinus*) in Japan”  
*Journal of Parasitology*, Vol.108(6), pp.637-643, 2022/12
- [62] Sassa-O'Brien Y, Ohya K, Yasuda-Koga S, Chahota R, Suganuma S, Inoue-Murayama M, **Fukushi H**, Kayang B, Owusu EH, **Takashima Y**.  
“Chlamydial species among wild birds and livestock in the foothills of Mt. Afadjato, Ghana”  
*J. Vet. Med. Sci.*, Vol.84(6), pp.817-823, 2022
- [63] Shengwei Ji, Onur Ceylan, Zhuowei Ma, Eloiza May Galon, Iqra Zafar, Hang Li, Yae Hasegawa, Mutlu Sevinc, **Tatsunori Masatani**, Aiko Iguchi, Osamu Kawase, Rika Umemiya-Shirafuji, Masahito Asada, Ferda Sevinc, Xuenan Xuan.  
“Protozoan and Rickettsial Pathogens in Ticks Collected from Infested Cattle from Turkey”  
*Pathogens*, Vol.11(5), pp.500, 2022/04/22
- [64] Shimizu K, Takase H, **Okada A**, **Inoshima Y**.  
“Possibility of mechanical transmission of parapoxvirus by houseflies (*Musca domestica*) on cattle and sheep farms”  
*Journal of Veterinary Medical Science*, Vol.84(9), pp.1313-1319, 2022/09/12
- [65] Shimizu M, **Miyawaki S**, Kuroda T, Umeta M, Kawabe M, **Watanabe K**.  
“Erythritol inhibits the growth of periodontal-disease-associated bacteria isolated from canine oral cavity”  
*Heliyon*, Vol.8(8), pp.e10224, 2022/08
- [66] Shintaro Kimura, **Hiroaki Kamishina**, Yoko Hirata, Kyoji Furuta, Yoshiaki Furukawa, Osamu Yamato, **Sadatoshi Maeda**, Yuji O Kamatari.  
“Novel oxindole compounds inhibit the aggregation of amyloidogenic proteins associated with neurodegenerative diseases”  
*Biochimica et Biophysica Acta - General Subjects*, Vol.1866(5), pp.130114, 2022/05
- [67] Somony Mam, Bengthay Tep, Soriya Rin, Yoshihisa Uenoyama, Shuichi Matsuyama, Satoshi Ohkura, **Tetsuma Murase**, Mitsuo Nunome, Yasuhiro Morita.  
“A Survey of Genome-Wide Genetic Characterizations of Crossbred Dairy Cattle in Local Farms in Cambodia”  
*Animals*, Vol.12(16), pp.2072, 2022/08/14
- [68] Takahashi T, Inukai M, Izumi F, Fujii Y, Nishiyama S, **Masatani T**, Sugiyama M, **Ito N**.  
“Establishment of a reverse genetics system for rabies virus strain Komatsugawa”  
*Journal of Veterinary Medical Science*, Vol.84(11), pp.1508-1513, 2022/09/29

- [69] Takashima S, Nasu T, Ohata K, Oikawa T, Sugaya T, **Kobatake Y**, Shimata S, **Nishii N**.  
“Urinary liver-type fatty acid-binding protein in two dogs with acquired Fanconi syndrome: A case report.”  
*Vet J*, Vol.12(6), pp.864-867, 2022/11
- [70] Teruaki Tozaki, Aoi Ohnuma, Kotonon Nakamura, Kazuki Hano, **Masaki Takasu**, Yuji Takahashi, Norihisa Tamura, Fumio Sato, Kyo Shimizu, Mio Kikuchi, Taichiro Ishige, Hironaga Kakoi, Kei-Ichi Hirota, Natasha A Hamilton, Shun-Ichi Nagata.  
“Detection of Indiscriminate Genetic Manipulation in Thoroughbred Racehorses by Targeted Resequencing for Gene-Doping Control”  
*Genes*, Vol.13(9), pp.1589, 2022/09/04
- [71] Teruaki Tozaki, Ho-Geun Kwak, Kotonon Nakamura, **Masaki Takasu**, Hideaki Ishii, Aoi Ohnuma, Mio Kikuchi, Taichiro Ishige, Hironaga Kakoi, Kei-Ichi Hirota, Kanichi Kusano, Minoru Hirata, Takashi Nirasawa, Shun-Ichi Nagata.  
“Sequence determination of phosphorothioated oligonucleotides using MALDI-TOF mass spectrometry for controlling gene doping in equestrian sports”  
*Drug testing and analysis*, Vol.14(1), pp.175-180, 2022/01
- [72] Tsukada F, Takashima S, Wakihara Y, Kamatari YO, Shimizu K, **Okada A**, **Inoshima Y**.  
“Characterization of miRNAs in milk small extracellular vesicles from enzootic bovine leukosis cattle”  
*International Journal of Molecular Sciences*, Vol.23(18), pp.10782, 2022/09/15
- [73] Voronkova VN, Nikolaeva EA, Piskunov AK, Babayan OV, **Takasu M**, Tozaki T, Svishecheva GR, Stolpovsky YA.  
“Assessment of genetic diversity and structure of Russian and Mongolian autochthonous horse breeds using nuclear and mitochondrial DNA markers.”  
*Russ. J. Genet.*, Vol.58, pp.927-943, 2022
- [74] Wakayama K, Kimura S, **Kobatake Y**, Kamishina H, **Nishii N**, **Takashima S**, Honda R, Kamatari YO.  
“Molecular Mechanisms of Aggregation of Canine SOD1 E40K Amyloidogenic Mutant Protein”  
*Molecules*, Vol.28(1), pp.156, 2022/12/24
- [75] **Watanabe K**, Tahara S, Koyama H, Shimizu M, Kawabe M, **Miyawaki S**.  
“Visual and histological evaluation of the effects of trafermin in a dog oronasal fistula model.”  
*Journal of Veterinary Medical Science*, Vol.84(1), pp.64-68, 2022/01
- [76] Yagi S, **Okada A**, **Inoshima Y**.  
“Role of temperature, nutrition, oxygen, osmolality, and bacterial strain in inducing a viable but non-culturable state in *Campylobacter jejuni*”  
*Journal of Microbiological Methods*, Vol.195, pp.106456, 2022/04
- [77] \*<sup>6</sup>Yamada Y, Minatoguchi S, Baba S, Shibata S, **Takashima S**, Wakao S, Okura H, Dezawa M, Minatoguchi S.  
“Human Muse cells reduce myocardial infarct size and improve cardiac function without causing arrhythmias in a swine model of acute myocardial infarction”  
*PloS One*, Vol.17(3), pp.e0265347, 2022/03/24
- [78] Yoneji W, Yoshizaki K, **Hirata A**, Yoneji K, **Sakai H**.  
“Clinical and Pathological Diagnosis of Hereditary Gastrointestinal Polyposis in Jack Russell Terriers”  
*Veterinary sciences*, Vol.9(10), pp.551, 2022/10/08
- [79] Yoshida K, Matsuoka T, **Kobatake Y**, **Takashima S**, **Nishii N**.  
“Quantitative assessment of muscle mass and gene expression analysis in dogs with glucocorticoid-induced muscle atrophy”  
*J Vet Med Sci*, Vol.84(2), pp.275-281, 2022/03/01
- [80] Yoshihara T, Kikuchi M, Akiba Y, Horiguchi M, **Takasu M**, Tozaki T.  
“Genetic diversity and parentage verification of Taishu horse using 31 microsatellites.”  
*J. Equine Sci.*, Vol.33(4), pp.63-69, 2022

- [81] ※<sup>2</sup>Yoshikawa R, Maeda A, Ueno Y, Sakai H, Kimura S, Sawadaishi T, Kohgo S, Yamada K, **Mori T**.  
 “Intraperitoneal administration of synthetic microRNA-214 elicits tumor suppression in an intraperitoneal dissemination mouse model of canine hemangiosarcoma”  
*Veterinary Research Communications*, Vol.46(2), pp.447-457, 2022/06
- [82] Yoshizaki K, **Hirata A**, Matsushita H, Sakaguchi M, Yoneji W, Owaki K, **Sakai H**.  
 “Molecular epidemiological study of germline APC variant associated with hereditary gastrointestinal polyposis in dogs: current frequency in Jack Russell Terriers in Japan and breed distribution”  
*BMC Veterinary Research*, Vol.18(1), pp.230, 2022/06/18

※<sup>3</sup> Also recorded on Course of Agricultural and Environmental Science, Research Center for Wildlife Management

※<sup>4</sup> Also recorded on Course of Research Center for Wildlife Management

※<sup>5</sup> Also recorded on Course of Research Center for Wildlife Management

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

#### 【Animal Medical Center】

- [1] ※<sup>6</sup>Yamada Y, Minatoguchi S, Baba S, **Shibata S**, Takashima S, Wakao S, Okura H, Dezawa M, Minatoguchi S.  
 “Human Muse cells reduce myocardial infarct size and improve cardiac function without causing arrhythmias in a swine model of acute myocardial infarction”  
*PloS One*, Vol.17(3), pp.e0265347, 2022/03/24

※<sup>6</sup> Also recorded on Joint Department of Veterinary Medicine

#### 【Research Center for Wildlife Management】

- [1] **Ikeda T, Higashide D**, Shichijo T.  
 “Impact of human disturbance in Japan on the distribution and diel activity pattern of terrestrial mammals”  
*Journal for Nature Conservation*, Vol.70, pp.126293, 2022/12
- [2] ※<sup>4</sup>**Ikeda T, Higashide D**, Suzuki T, Asano M.  
 “Efficient oral vaccination program against classical swine fever in wild boar population”  
*Preventive Veterinary Medicine*, Vol.205, pp.105700, 2022/08
- [3] ※<sup>3</sup>**Ikeda T**, Nakamori S, Ando M, Shirakawa T, Okamoto T, Suzuki M.  
 “Seasonal diel activity patterns of three sympatric ungulates in forested area in central Japan”  
*Mammal Study*, Vol.47(1), pp.47-56, 2022/01
- [4] ※<sup>5</sup>Ikushima S, Kuninaga N, **Ikeda T**, Okamoto T, Asano M, Suzuki M.  
 “Evaluation of the effect of culling on browse damage by the Japanese Serow in Gifu Prefecture, Japan”  
*Human-Wildlife Interactions*, Vol.16(1), pp.29-43, 2022

※<sup>3</sup> Also recorded on Course of Agricultural and Environmental Science, Joint Department of Veterinary Medicine

※<sup>4</sup> Also recorded on Course of Joint Department of Veterinary Medicine

※<sup>5</sup> Also recorded on Course of Joint Department of Veterinary Medicine

## 2) Book

### 【Course of Applied Life Science】

- [1] **Yabe T**, Maeda N.  
“Histochemical Analysis of Heparan Sulfate 3-O-sulfotransferase Expression in Mouse Brain”  
Balagurunathan K, Nakato H, Desai U, Saijoh Y (eds) Glycosaminoglycans, Methods in Molecular  
Biology, vol 2303, Humana, New York, pp.719-730, 2022

### 【Course of Agricultural and Environmental Science】

- [1] **Hirota I**.  
“Remote Sensing of Agriculture and Land Cover/Land Use Changes in South and Southeast Asian  
Countries”  
Springer, 2022
- [2] Ronald Muana, **Keigo Noda**, Kazuo Oki.  
“Payment for Ecosystem Services Framework Development through a Hydrologic/Water Quality Model: A  
Look into Nutrient Pollution in Manila Bay” 『THE INTERNATIONAL CONFERENCE ON  
CONTEMPORARY ISSUES IN SUSTAINABLE DEVELOPMENT (CISD2021) part 2』  
2022/03

### 【Joint Department of Veterinary Medicine】

- [1] **Miyawaki S**, Tachibana M.  
「The Evolutionary Aspects of the Mammalian Sex-Determining Gene SRY」 『Spectrum of sex : the  
molecular bases that induce various sexual phenotypes』  
Springer Nature Singapore, pp.69-84, 2022

### 【Research Center for Wildlife Management】

- [1] **Ikeda T**.  
「Activity patterns and habitat use between sika deer and Japanese serow」 『Sika Deer: Life History  
Plasticity and Management』  
Springer, 2022

## II Lectures, Conference Presentation, etc.

### 1) Conference Presentation

#### 【Course of Applied Life Science】

- [1] Daiki Sugihara, Makoto Matsuyama, Chiharu Suzuki-Nakagawa, A.H.M. Nurun Nabi, **Tsutomu Nakagawa**, Akira Nishiyama, Fumiaki Suzuki, **Akio Ebihara**.  
“Functional versatility of (pro)renin receptor clarified by structural and evolutionary analyses. Session Title: Renin-Angiotensin-Aldosterone System (Basic Science).”  
Ish2022(Kyoto, Japan),2022/10/16
- [2] **Ebihara A.**  
“Mapping the protein binding site of the (pro)renin receptor using in silico 3D structural analysis”  
2nd International Conference cum Workshop on "Recent Trends in Structural Bioinformatics and Computer Aided Drug Design"(Tamil Nadu, India), 2022/11/21-25
- [3] **Imaizumi T**, Kuroda K, Yasuda M, Niikawa T, **Nakano K**, **Katsuno N**, **Nishizu T**.  
“Metabolic and Electrical Responses to Potassium Deficiency Stress in Strawberries”  
The XX CIGR World Congress 2022(Kyoto, Japan), 2022/12/05-10
- [4] Nabila Nurul Ahmeidiati, **Teppei Imaizumi**, **Manasikan Thammawong**, **Kohei Nakano**.  
“Effect of controlled atmosphere storage on aroma volatiles in ‘Shine Muscat’”  
The Spring Conference of the Society of Agricultural Structures, Japan 2022 (Online) , 2022/02/19
- [5] Oshima T, **Imaizumi T**, **Katsuno N**, **Nishizu T**.  
“Analysis of interaction between calcium and carrot pectin using atomic force microscopy”  
The XX CIGR World Congress 2022(Kyoto, Japan), 2022/12/05-10
- [6] **Shimada A**, Shinzawa-Itoh K, Muramoto K, Tsukihara T, Yoshikawa S.  
“Coupling mechanism between O<sub>2</sub> reduction and proton-pumping reaction driven by cytochrome c oxidase”  
International Conference on porphyrins and phthalocyanines (ICPP12)(Madrid, Spain), 2022/07/10-15
- [7] Wakita N, Suzuki I, **Imaizumi T**, **Nakano K**, **Katsuno N**, **Nishizu T**.  
“Changes in morphology of intercellular spaces of pea bean sprout during regrowth”  
The XX CIGR World Congress 2022(Kyoto, Japan), 2022/12/05-10

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

- [1] **Hirota I**, Tsuji T.  
“Bamboo utilization in a swidden-fishing village of mangrove area of the Pala'wan in southern Palawan”  
UP Anthro-Socio National Conference, 2022/03/24

#### 【Joint Department of Veterinary Medicine】

- [1] Hyodo F, Koyasu N, **Iwasaki R**, Eto H, Elhelaly A. E, Habaka M, Murata M, Tomita H, **Mori T**, Matsuo M.  
“Comparison of redox alteration and cancer metabolism after radiation treatment of tumor using in vivo DNP-MRI and dissolution DNP-MRS”  
Society for Redox Biology and Medicine 29th annual meeting(USA), 2022/11/16-19
- [2] Kiyotada Naitou, Honoka Iwashita, Hiromi H Ueda, Mitsuya Shiraishi, Yoshikazu Fujimoto, Kazuhiro Horii, Tomoya Sawamura, **Takahiko Shiina**, **Yasutake Shimizu**.  
“Spinal Substance P Related To Defecation Reflexes And Enhanced Colorectal Motility”  
ISAN2022 (International Society for Autonomic Neuroscience) (Cairns, Australia), 2022/09/04-07
- [3] Koyasu N, Hyodo F, Elhelaly A. E, Shoda S, **Iwasaki R**, Tomita H, **Takasu M**, **Mori T**, Noda Y, Kato H, Matsuo M.  
“Early monitoring of redox status based on reduced molecules using in vivo DNP-MRI for cancer treatment”  
American Society for Radiation Oncology 64th Annual Meeting(USA), 2022/10/23-26

- [4] Kuzuoka K, Kawai K, Yamauchi S, Kohbe J, **Okada A, Inoshima Y.**  
“Statistical analysis of on-site problems at slaughterhouses and feedback to food business operators”  
The 21st Federation of Asian Veterinary Associations (FAVA) Congress(Fukuoka, Japan), 2022/11/13
- [5] Matsuo M, Hyodo F, Hiroshi K, **Iwasaki R**, Takasugi N, Nagata S, Mori T, Tomita H, Ito M, Makita C, Kumano T, **Mori T.**  
“Pathological assessment of cardiac radioablation to the cavotricuspid isthmus without gating and real-time tracking in mini pigs”  
American Society for Radiation Oncology 64th Annual Meeting(USA), 2022/10/23-26
- [6] Mori T, Hyodo F, **Iwasaki R, Mori T**, Koyasu N, Ito M, Makita C, Kumano T, Matsuo M.  
“Development of highly sensitive and stable nitroxyl probe for visualization of free radical reaction induced by X-ray irradiation”  
American Society for Radiation Oncology 64th Annual Meeting(USA), 2022/10/23-26
- [7] Rahman MM, Takashima S, Kamatari YO, Shimizu K, **Okada A, Inoshima Y.**  
“Development of a monitoring method for high risk cattle of bovine leukemia virus transmission and onset of enzootic bovine leukosis using milk exosomes”  
The 21st Federation of Asian Veterinary Associations (FAVA) Congress(Fukuoka, Japan), 2022/11/13
- [8] Sawamura T, Horii K, Yuki N, Naitou K, Yamaguchi H, Yamanaka A, **Shiina T, Shimizu Y.**  
“Role of Descending Monoaminergic Neurons From The A11 Region And Medullary Raphe Nuclei In Regulation of Colorectal Motility In Rats”  
ISAN2022 (International Society for Autonomic Neuroscience) (Cairns, Australia), 2022/09/04-07
- [9] **Shimizu Y**, Horii K, Sawamura T, Yuki N, Naitou K, **Shiina T.**  
“Female-Specific Gabaergic Inhibition of The Lumbosacral Defecation Center In Rats”  
ISAN2022 (International Society for Autonomic Neuroscience) (Cairns, Australia), 2022/09/04-07
- [10] Yuki N, Sawamura T, Horii K, Naitou K, Yamaguchi H, Yamanaka A, **Shiina T, Shimizu Y.**  
“Glutamatergic Stimulation of The Dorsomedial Hypothalamus Enhances Colorectal Motility By Activating Descending Serotonergic And Dopaminergic Neurons In Rats”  
ISAN2022 (International Society for Autonomic Neuroscience) (Cairns, Australia), 2022/09/04-07

## 2) Academic lecture

### 【Course of Applied Life Science】

- [1] **Yamauchi K.**  
“Finding of active compound from medicinal plants”  
International Conference on Indigenous Knowledge for Sustainable Agriculture (ICIKSA), 2022  
(Invitation lecture)

### 【Course of Agricultural and Environmental Science】

- [1] **Hirota I.**  
“Bamboo in Laos and Japan”  
International workshop on “Changing landscapes and livelihoods in Southeast Asian Massif”(Nagoya, Japan), 2022/10/17 (Invitation lecture)
- [2] **Ninomiya S.**  
“Animal Behaviour as an Indicator of Animal Welfare”  
The 19th Asian-Australasian Association of Animal Production Congress (AAP2022)(Korea), 2022/08/25  
(Invitation lecture)
- [3] **Takashi S. T. Tanaka.**  
“Potential of On-Farm Experimentation Towards Digital Agriculture”  
The Department of Agricultural and Biosystem Engineering (ABE)( Faculty of Agriculture, Lampung University(Indonesia)), 2022/02/22 (Invitation lecture)



# GIFU UNIVERSITY

Faculty of Applied Biological Sciences

Gifu University

Annual Report of Research Activities 2022 Vol.19

---

October 31, 2023

Publisher Faculty of Applied Biological Sciences  
Gifu University  
1-1 Yanagido, Gifu City 501-1193

---