

Faculty of Applied Biological Sciences
Gifu University

Annual Report of Research Activities 2019

Vol. 16

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I Research Achievement

1) Academic Paper

【Course of Applied Life Science】

- [1] Akther J, Nabi AHMN, Ohno S, Yokogawa T, **Nakagawa T**, Suzuki F, **Ebihara A**.
“Establishing a novel assay system for measuring renin concentration using cost effective recombinant ovine angiotensinogen”
Heliyon, Vol.5(4), pp.e01409, 2019/04/04
- [2] Arata Banno, Jilite Wang, Kenji Okada, Ryosuke Mori, Maihemuti Mijiti, **Satoshi Nagaoka**.
“Identification of a novel cholesterol-lowering dipeptide, phenylalanine-proline (FP), and its down-regulation of intestinal ABCA1 in hypercholesterolemic rats and Caco-2 cells.”
Scientific Reports, Vol.9, pp.389, 2019
- [3] Asano S, Pal R, Tanaka HN, **Imamura A**, **Ishida H**, Suzuki KGN, Ando H.
“Development of Fluorescently Labeled SSEA-3, SSEA-4, and Globo-H Glycosphingolipids for Elucidating Molecular Interactions in the Cell Membrane”
Int. J. Mol. Sci., Vol.20(24), pp.6187, 2019
- [4] Asano S, Tanaka HN, **Imamura A**, **Ishida H**, Ando H.
“*p*-tert-Butyl groups improve the utility of aromatic protecting groups in carbohydrate synthesis”
Org. Lett, Vol.21(11), pp.4197-4200, 2019
- [5] Atikij T, Syaputri Y, **Iwahashi H**, Praneenararat T, Sirisattha S, Kageyama H, Waditee-Sirisattha R.
“Enhanced Lipid Production and Molecular Dynamics under Salinity Stress in Green Microalga Chlamydomonas reinhardtii (137C).”
Mar. Drugs, Vol.17(8), pp.484, 2019/08
- [6] *Awasthi JP, Saha B, Panigrahi J, **Yanase E**, Koyama H, Panda SK.
“Redox balance, metabolic fingerprint and physiological characterization in contrasting North East Indian rice for Aluminum stress tolerance”
Scientific reports, Vol.9(1), pp.8681, 2019/06
- [7] Baba S, **Shimada A**, Mizuno N, Baba J, Ago H, Yamamoto M, Kumasaki T.
“A temperature-controlled cold-gas humidifier and its application to protein crystals with the humid-air and glue-coating method.”
Journal of applied crystallography, Vol.52(4), pp.699-705, 2019/08
- [8] Chandela A, **Ueno Y**.
“Design, synthesis and evaluation of novel, branched trident small interfering RNA nanostructures for sequence-specific RNAi activity”
RSC Advances, Vol.9, pp.34166-34171, 2019
- [9] Chandela A, **Ueno Y**.
“Systemic delivery of small interfering RNA therapeutics; obstacles and advances.”
Reviews in Agricultural Science, Vol.7, pp.10-28, 2019
- [10] Chandela A, Watanabe T, Yamagishi K, **Ueno Y**.
“Synthesis and characterization of small interfering RNAs with haloalkyl groups at their 3'-dangling ends.”
Bioorg. Med. Chem., Vol.27(7), pp.1341-1349, 2019/04/01
- [11] Choodej S, Pudhom K, **Yamauchi K**, **Mitsunaga T**.
“Inhibition of melanin production by sesquiterpene lactones from Saussurea lappa and their analogues”
Medicinal Chemistry Research, Vol.28(6), pp.857-862, 2019/06
- [12] Egra S, Amarullah, Sekarsari RA, Kuspradini H, **Mitsunaga T**.
“Potential of dayak onion (Eleutherine palmifolia 1 merr) extract as natural pesticide for bacteria causing wilt disease.”
Inernational Journal of Scientific and Technology Research, Vol.8

- [13] Fahmy K, Chatib OC, Cherie D, Maulida P, Sirtin AA, Susanto N, Nofiarli, Violalita F, **Nakano K**, Jitareerat P.
“Individual effect of UV-C radiation and hot water treatment on harvested quality of chili.”
IOP Conf. Ser.: Earth Environ. Sci., Vol.327, pp.012007, 2019/10
- [14] Fahmy K, Violalita F, Chatib OC, Andasurtani, Yulia R, **Nakano K**.
“The individual influences of high CO₂ on chilling injury suppression of 'Merah Delima' papaya fruit”
IOP Conf. Ser.: Earth Environ. Sci., Vol.230, pp.012016, 2019
- [15] Fakfan Luangapai, Methavee Peanparkdee, **Satoshi Iwamoto**.
“Biopolymer films for food industries: properties, applications, and future aspects based on chitosan”
Reviews in Agricultural Science, Vol.7, pp.59-67, 2019/06
- [16] Fukuoka H, Kawase T, Oku M, Yurimoto H, Sakai Y, **Hayakawa T**, **Nakagawa T**.
“Peroxisomal Fba2p and Tal2p complementally function in the rearrangement pathway for xylulose 5-phosphate in the methylotrophic yeast *Pichia pastoris*.”
Journal of Bioscience and Bioengineering, Vol.128(1), pp.33-38, 2019/07
- [17] Goto K, Tamai H, Takeda Y, Tanaka HN, Mizuno T, **Imamura A**, **Ishida H**, Kiso M, Ando H.
“Total Synthesis of Sialyl Inositol Phosphosphingolipids CJP-2, CJP-3, and CJP-4 Isolated from Feather Star *Comanthus japonica*”
Org. Lett, Vol.21(11), pp.4054-4057, 2019
- [18] Hamada K, Miwa A, Takahashi U, **Iwahashi H**.
“Critical events leading to cellular mortality of yeast cells following hydrostatic pressure treatment.”
High Pressure Research, Vol.39(2), pp.267-272, 2019
- [19] Hattori H, **Mitsunaga T**, Clive LJD.
“Synthesis of Phenolic Components of Grains of Paradise”
Tetrahedron Letters, Vol.60(30), pp.1989-1991, 2019/07/25
- [20] *²Hibi A, Ohno T, Moriyama A, Himaki T, Takahashi J, **Iwahashi H**.
“Evaluation of the effect of high pressure carbon dioxide-pasteurized food on animal health”
High Pressure Research, Vol.39(2), pp.357-366, 2019
- [21] Hibi Y, **Yanase E**.
“Oxidation of Procyanidins with Various Degrees of Condensation: Influence on the Color-Deepening Phenomenon.”
J. Agric. Food Chem., Vol.67(17), pp.4940-4946, 2019
- [22] Ichigo Y, Takeshita A, Hibino M, **Nakagawa T**, **Hayakawa T**, Patel D, Field CJ, **Shimada M**.
“High-fructose diet-induced hypertriglyceridemia is associated with enhanced hepatic expression of ACAT2 in rats”
Physiological Research, Vol.68(6), pp.1021-1026, 2019/12
- [23] **Imaizumi T**, Tanaka F, Uchino T.
“Effects of mild heating treatment on texture degradation and peroxidase inactivation of carrot under pasteurization conditions”
Journal of Food Engineering, Vol.257, pp.19-25, 2019/09
- [24] **Imamura A**.
“Chemical Synthesis of Structurally Complex Sialoglycans”
Trends Glycosci. Glycotechnol, Vol.31(181), pp.SE100-SE101, 2019
- [25] Ishisono K, Mano T, **Yabe T**, **Kitaguchi K**.
“Dietary Fiber Pectin Ameliorates Experimental Colitis in a Neutral Sugar Side Chain-Dependent Manner”
Frontiers in Immunology, Vol.10, pp.2979, 2019/12
- [26] Jiang L, **Iwahashi H**.
“The roles of radio-functional natural chemicals for the development of cancer radiation therapy.”
Reviews on environmental health, Vol.34(1), pp.5-12, 2019/03/26

- [27] ^{※3}Jiang L, **Yanase E**, Mori T, Kurata K, Toyama M, Tsuchiya A, **Yamauchi K**, **Mitsunaga T**, **Iwahashi H**, Takahashi J.
“Relationship between Flavonoid Structure and Reactive Oxygen Species Generation upon Ultraviolet and X-ray Irradiation”
Journal of Photochemistry and Photobiology A: Chemistry, Vol.384, pp.112044, 2019/11/01
- [28] Kajino R, Maeda Y, Yoshida H, Yamagishi K, **Ueno Y**.
“Synthesis and Biophysical Characterization of RNAs Containing (R)- and (S)-5'- C-Aminopropyl-2'- O-methyluridines.”
The Journal of organic chemistry, Vol.84(6), pp.3388-3404, 2019/03/15
- [29] Kakumu Y, **Yamauchi K**, **Mitsunaga T**.
“Identification of chemical constituents from the bark of Larix kaempferi and their tyrosinase inhibitory effect”
Holzforschung, Vol.73(7), pp.637-643, 2019/03/13
- [30] Kitagawa E, Ota Y, Hasegawa M, **Nakagawa T**, **Hayakawa T**.
“Accumulation of Liver Lipids Induced by Vitamin B₆ Deficiency Was Effectively Ameliorated by Choline and, to a Lesser Extent, Betaine.”
Journal of Nutritional Science and Vitaminology, Vol.65(1), pp.94-101, 2019
- [31] **Kitaguchi K**, **Yabe T**.
“Dietary fiber pectin is recognized in a structure-specific manner by intestinal cells.”
Trends Glycosci. Glycotechnol, Vol.31(182), pp.E91-E97, 2019
- [32] Koikeda M, Komura N, Tanaka HN, **Imamura A**, **Ishida H**, Kiso M, Ando H.
“Synthesis of ganglioside analogs containing fluorescently labeled GalNAc for single-molecule imaging”
J. Carbohydr. Chem., Vol.38(7-8), pp.509-527, 2019
- [33] Komura N, Kato K, Udagawa t, Asano S, Tanaka H-N, **Imamura A**, **Ishida H**, Kiso M, Ando H.
“Constrained sialic acid donors enable selective synthesis of α-glycosides”
Science, Vol.364(6441), pp.677-680, 2019/05
- [34] Kubota S, Tanaka Y, **Nagaoka S**.
“Ellagic acid affects mRNA expression levels of genes that regulate cholesterol metabolism in HepG2 cells.”
Biosci. Biotechnol. Biochem., Vol.83(5), pp.952-959, 2019
- [35] Lillehoj EP, Guang W, Hyun SW, Liu A, Hegerle N, Simon R, Cross AS, **Ishida H**, Luzina IG, Atamas SP, Goldblum SE.
“Neuraminidase 1-mediated desialylation of the mucin 1 ectodomain releases a decoy receptor that protects against *Pseudomonas aeruginosa* lung infection”
J. Biol. Chem., Vol.294, pp.662-678, 2019/01/11
- [36] Masum MN, Choodej S, **Yamauchi K**, **Mitsunaga T**.
“Isolation of phenylpropanoid sucrose esters from the roots of *Persicaria orientalis* and their potential as inhibitors of melanogenesis”
Medicinal Chemistry Research, Vol.28(5), pp.623-632, 2019/05
- [37] Masum MN, **Yamauchi K**, **Mitsunaga T**.
“Tyrosinase Inhibitors from Natural and Synthetic Sources as Skin-lightening Agents”
Reviews in Agricultural Science, Vol.7, pp.41-58, 2019
- [38] Methavee Peanparkdee, Juthatip Patrawart, **Satoshi Iwamoto**.
“Effect of extraction conditions on phenolic content, anthocyanin content and antioxidant activity of bran extracts from Thai rice cultivars”
Journal of Cereal Science, Vol.86, pp.86-91, 2019/03
- [39] Methavee Peanparkdee, **Satoshi Iwamoto**.
“Bioactive compounds from by-products of rice cultivation and rice processing: Extraction and application in the food and pharmaceutical industries”
Trends in Food Science & Technology, Vol.86, pp.109-117, 2019/04

- [40] ^{※4}Moriyama A, Hasegawa T, Lei J, **Iwahashi H**, Mori T, Takahashi J.
“Screening of X-ray responsive substances for the next generation of radiosensitizers”
Scientific Report, Vol.9(1), pp.18163, 2019/12
- [41] Moriyama A, Hasegawa T, Nagayaa C, Hamada K, Himaki T, Murakami M, Horiec M, Takahashid J, **Iwahashia H**, Moritomi H.
“Assessment of harmfulness and biological effect of carbon fiber dust generated during new carbon fiber recycling method.”
Journal of Hazardous Materials, Vol.378, pp.120777, 2019/10/15
- [42] Moriyama A, Takahashi U, Mizuno Y, Takahashi J, Horie M, **Iwahashi H**.
“The Truth of Toxicity Caused by Yttrium Oxide Nanoparticles to Yeast Cells.”
Journal of Nanoscience and Nanotechnology, Vol.19(9), pp.5418-5425, 2019/09
- [43] **Nagaoka S.**
“Structure–function properties of hypolipidemic peptides”
J. Food Biochem., Vol.43(1), pp.e12539, 2019
- [44] Nagata S, Tomida H, Iwai-Hirose H, Tanaka HN, Ando H, **Imamura A, Ishida H**.
“Synthesis of a 1,2-*cis*-indoxyl galactoside as a chromogenic glycosidase substrate”
RSC Adv., Vol.9, pp.28241-28247, 2019
- [45] Njane SN, Shinohara Y, Kondo N, Ogawa Y, Suzuki T, **Nishizu T**.
“Underwater fish volume estimation using closed and open cavity Helmholtz resonators”
Engineering in Agriculture, Environment and Food, Vol.12(1), pp.81-88, 2019/01
- [46] NJANE Stephen N, Ogawa Y, Suzuki T, Ogata Y, Shinohara Y, Kawamura T, **Nishizu T**, Kondo N.
“Underwater Helmholtz Resonator with Double Cavities for Volumetric Estimation of Aquatic Samples”
Journal of the Japanese Society of Agricultural Machinery and Food Engineers, Vol.81(4), pp.233-242, 2019/07
- [47] Palanikumar I, Katla S, Tahara N, Yui M, Zhang R, **Ebihara A**, Sivaprakasam S.
“Heterologous expression, purification, and functional characterization of recombinant ovine angiotensinogen in the methylotrophic yeast *Pichia pastoris*”
Biotechnology progress, Vol.35(5), pp.e2866, 2019/09
- [48] Sakakibara T, Sawada Y, Wang J, **Nagaoka S, Yanase E**.
“Molecular mechanism by which tea catechins decrease the micellar solubility of cholesterol.”
J. Agric.Food Chem., Vol.67, pp.7128-7135, 2019
- [49] Shimada M, Ichigo Y, Shirouchi B, Takashima S, **Inagaki M, Nakagawa T, Hayakawa T**.
“Treatment with myo-inositol attenuates binding of the carbohydrate-responsive element-binding protein to the ChREBP-β and FASN genes in rat nonalcoholic fatty liver induced by high-fructose diet.”
Nutrition Research, Vol.64, pp.49-55, 2019/04
- [50] Stephen N. Njane, Yoshiaki Shinohara, Naoshi Kondo, Yuichi Ogawa, Tetsuhito Suzuki, **Takahisa Nishizu**.
“Underwater fish volume estimation using closed and open cavity Helmholtz resonators”
Engineering in Agriculture, Environment and Food, Vol.12(1), pp.81-88, 2019/01
- [51] Suehiro D, Okada M, Fukami K, **Nakagawa T, Hayakawa T**.
“Maltobionic acid enhances intestinal absorption of calcium and magnesium in rats”
Bioscience, Biotechnology, and Biochemistry, Vol.83(9), pp.1766-1773, 2019/09
- [52] Supphachuchai J, **Nakano K**, Syukri D, Liamnimitr N, Jitareerat P.
“Effect of hot water treatment on quality maintaining of coriander.”
Agricultural Science Journal, Vol.50(3 Suppl), pp.111-114, 2019
- [53] Suzuki T, Hayashi C, Komura N, Tamai R, Uzawa J, Ogawa J, Tanaka HN, **Imamura A, Ishida H**, Kiso M, Yamaguchi Y, Ando H.
“Synthesis and glycan-protein interaction studies of Se-sialosides by ⁷⁷Se NMR”
Org. Lett., Vol.21(16), pp.6393-6396, 2019

- [54] Syukri D, **Thammawong M**, Naznin AH, **Nakano K**.
 “Role of raffinose family oligosaccharides in respiratory metabolism during soybean seed germination.”
Environmental Control in Biology, Vol.54(4), pp.107-112, 2019
- [55] Takahama U, Hirota S, **Yanase E**.
 “Slow starch digestion in the rice cooked with adzuki bean: Contribution of procyanidins and the oxidation products”
Food research international (Ottawa, Ont.), Vol.119, pp.187-195, 2019/05
- [56] Takahashi J, Nagasawa S, Ikemoto M, Sato C, Sato M, **Iwahashi H**.
 “Verification of 5-Aminolevurinic Radiodynamic Therapy Using a Murine Melanoma Brain Metastasis Model”
Int. J. Mol. Sci., Vol.20(20), pp.5155, 2019/10
- [57] Takahashi U, Hamada K, **Iwahashi H**.
 “Critical damage to the cellular organelles of *Saccharomyces cerevisiae* under sublethal conditions upon high pressure carbon dioxide treatment”
High Pressure Research, Vol.39(2), pp.267-272, 2019
- [58] Takato K, Kurita M, Yagami N, Tanaka H, Ando H, **Imamura A**, **Ishida H**.
 “Chemical synthesis of diglucosyl diacylglycerols utilizing glycosyl donors with stereodirecting cyclic silyl protective groups”
Carbohydrate Research, Vol.483, pp.107748, 2019/09/01
- [59] Takeno A, Kutsumizu S, Nakai A, **Iwahashi H**.
 “Composite Materials Research for Human, Gu Composites Center of Gifu University”
SEN-I GAKKAISHI, Vol.75(4), pp.215-220, 2019/04
- [60] **Thammawong M**, Kasai E, Syukuri D, **Nakano K**.
 “Effect of a low oxygen storage condition on betacyanin and vitamin C retention in red amaranth leaves.”
Scientia Horticulturae, Vol.246, pp.765-768, 2019/02/27
- [61] Thiraviam V, **Thammawong M**, Umehera H, Nakamura N, Shiina T.
 “Effect of Hinokitiol impregnated sheets on shelf life and quality of ‘KEK-1’ tomatoes during storage.”
Packag. Technol. Sci., Vol.32(12), pp.641-648, 2019/12
- [62] Uematsu A, Kajino R, Maeda Y, **Ueno Y**.
 “Synthesis and characterization of 4'-C-guanidinomethyl-2'-O-methyl-modified RNA oligomers.”
Nucleosides, Nucleotides & Nucleic Acids, Vol.39(1-3), pp.280-291, 2019/09
- [63] Ueno G, **Shimada A**, Yamashita E, Hasegawa K, Kumasaka T, Shinzawa-Itoh K, Yoshikawa S, Tsukihara T, Yamamoto M.
 “Low-dose X-ray structure analysis of cytochrome c oxidase utilizing high-energy X-rays.”
J. Synchrotron Rad, Vol.26, pp.912-921, 2019
- [64] Wang X, Batubara I, **Yamauchi K**, **Mitsunaga T**.
 “Identification and structure-activity relationship (SAR) of chemical constituents from Daemonorops draco (Willd.) Blume and selected commercial flavonoids on anti-osteoclastogenesis activity.”
Fitoterapia., Vol.138, pp.104280, 2019/10
- [65] Wang L, Suganuma S, Hibino A, Mitsui R, Tani A, Matsumoto T, **Ebihara A**, Fitriyanto NA, Pertiwiningrum A, **Shimada M**, **Hayakawa T**, **Nakagawa T**.
 “Lanthanide-dependent methanol dehydrogenase from the legume symbiotic nitrogen-fixing bacterium Bradyrhizobium diazoeficiens strain USDA110”
Enzyme Microb Technol, Vol.130, pp.109371, 2019/11
- [66] **Yamauchi K**, Natsume M, Yamaguchi K, Batubara I, **Mitsunaga T**.
 “Structure-activity relationship for vanilloid compounds from extract of Zingiber officinale var rubrum rhizomes: effect on extracellular melanogenesis inhibitory activity”
Medicinal Chemistry Research, Vol.28(9), pp.1402-1412, 2019/09

- [67] Yoshida F, Yoshinaka H, Tanaka H, Hanashima S, Yamaguchi Y, Ishihara M, Saburomaru M, Kato Y, Saito R, Ando H, Kiso M, **Imamura A, Ishida H.**
 “Synthesis of the core oligosaccharides of lipooligosaccharides from *Campylobacter jejuni*: a putative cause of Guillain–Barré syndrome”
Chem. Eur. J., Vol.25(3), pp.796-805, 2019/01/14
- [68] Yu T, **Iwahashi H.**
 “Conversion of waste meat to resources by enzymatic reaction under high pressure carbon dioxide conditions”
High Pressure Research, Vol.39(2), pp.367-373, 2019

- ※1 Also recorded on Course of Agricultural and Environmental Science
- ※2 Also recorded on Course of Agricultural and Environmental Science
- ※3 Also recorded on Department of Veterinary Medicine
- ※4 Also recorded on Department of Veterinary Medicine

【Course of Agricultural and Environmental Science】

- [1] ※⁵Abe N, Matsuo K, **Moribe J**, Takashima Y, Baba T, Gjerde B.
 “Molecular differentiation of five *Sarcocystis* species in sika deer (*Cervus nippon centralis*) in Japan based on mitochondrial cytochrome c oxidase subunit I gene (coxl) sequences”
Parasitol Res., Vol.118(6), pp.1975-1979, 2019/06
- [2] ※⁶Abe N, Matsuo K, **Moribe J**, Takashima Y, Irie T, Baba T, Gjerde B.
 “Morphological and molecular characteristics of seven *Sarcocystis* species from sika deer (*Cervus nippon centralis*) in Japan, including three new species”
International Journal for Parasitology: Parasites and Wildlife, Vol.10, pp.252-262, 2019/12
- [3] Akira Komiyama, Sasitorn Poungparn, Suthathip Umnouysin, Chadtip Rodtassana, Tamai Pravinvongvuthi, Takehiro Noda, **Shogo Kato**.
 “Occurrence of seasonal water replacement in mangrove soil and the trunk growth response of *Avicennia alba* related to salinity changes in a tropical monsoon climate”
Ecological Research, Vol.34(3), pp.428-439, 2019/05
- [4] ※⁷**Ando M**, Nakatsuka S, Aizawa H, Nakamori S, Ikeda T, **Moribe J**, Terada K, Kato K.
 “Recognition of wildlife in images taken by camera trap with deep learning”
Mammalian Science, Vol.59(1), pp.49-60, 2019
- [5] Auliana Afandi, Ayaka Hieno, Arif Wibowo, Siti Subandiyah, Afandi, Haruhisha Suga, **Koji Tsuchida**, Koji Kageyama.
 “Genetic diversity of *Phytophthora nicotianae* reveals pathogen transmission mode in Japan”
Journal of General Plant Pathology, Vol.85(3), pp.189-200, 2019/05
- [6] ※¹Awasthi JP, Saha B, Panigrahi J, Yanase E, **Koyama H**, Panda SK.
 “Redox balance, metabolic fingerprint and physiological characterization in contrasting North East Indian rice for Aluminum stress tolerance”
Scientific reports, Vol.9(1), pp.8681, 2019/06
- [7] Daspute AA, Yunxuan X, Gu M, **Kobayashi Y**, Wagh S, Panche A, **Koyama H**.
 “Agrobacterium rhizogenes-mediated hairy roots transformation as a tool for exploring aluminum-responsive genes function.”
Future Sci OA., Vol.5(3), pp.FSO364, 2019/03
- [8] De Castro RO, Ohkura S, **Yamamoto A**, Padua AP, Sulabo RC.
 “Prediction of amino acid content and gross energy in different co-products of coconut (*Cocos nucifera L.*) processing using chemical composition and physical characteristics.”
Philippine Agricultural Scientist, Vol.102(2), pp., 2019

- [9] Diana Hapsari, Takeo Onishi, Fumitoshi Imaizumi, **Keigo Noda, Masateru Senge**.
 “The Use of Sediment Rating Curve under its Limitations to Estimate the Suspended Load”
Reviews in Agricultural Sciences, Vol.7, pp.88-101, 2019
- [10] Enomoto T, Tokizawa M, Ito H, Iuchi S, Kobayashi M, **Yamamoto YY, Kobayashi Y, Koyama H**.
 “STOP1 regulates the expression of HsfA2 and GDH genes critical for low-oxygen tolerance in Arabidopsis.”
J Exp Bot, Vol.70(12), pp.3297-3311, 2019/06/01
- [11] Fang C, Shimizu H, **Nishiyama T, Nishimura S**.
 “Predicting residual frictional angle by Atterberg Limits for reservoir embankment soils.”
International Journal of GEOMATE, Vol.17(63), pp.111-118, 2019/11
- [12] Fukuda S, **Noda K**, Oki T.
 “How global targets on drinking water were developed and achieved”
Nature Sustainability, Vol.2, pp.429-434, 2019
- [13] Haga N, Kobayashi M, Michiki N, TakaoT, Baba F, Kobayashi K, Ohyanagi H, Ohgane J, Yano K, **Yamane K**.
 “Complete chloroplast genome sequence and phylogenetic analysis of wasabi (*Eutrema japonicum*) and its relatives”
Scientific Reports, Vol.9, pp.14377, 2019
- [14] Hamasaki H, Kurihara Y, Kuromori T, Kusano H, Nagata N, **Yamamoto YY**, Shimada H, Matsui M.
 “SnRK1 Kinase and the NAC Transcription Factor SOG1 Are Components of a Novel Signaling Pathway Mediating the Low Energy Response Triggered by ATP Depletion”
Front Plant Sci, Vol.10, pp.503, 2019/05/10
- [15] Hasib A, **Matsubara Y**.
 “Antifungal effect of Lamiaceae herb water extracts against Fusarium root rot in asparagus”
J. Plant Dis. Prot., Vol.127, pp.229-236, 2019/11
- [16] *²Hibi A, Ohno T, Moriyama A, **Himaki T**, Takahashi J, Iwahashi H.
 “Evaluation of the effect of high pressure carbon dioxide-pasteurized food on animal health”
High Pressure Research, Vol.39(2), pp.357-366, 2019
- [17] Hidetoshi Naganawa, Elena Yu. Naumova, Natalia N. Denikina, Ilya G. Kondratov, Elena V. Dzyuba, **Atsushi Iwasawa**.
 “Does the dispersal of fairy shrimps (Branchiopoda, Anostraca) reflect the shifting geographical distribution of freshwaters since the late Mesozoic?”
Limnology, Vol.21, pp.25-34, 2019/08
- [18] Hieno A, Naznin HA, Hasegawa-Inaba K, Yokogawa T, Hayami N, Nomoto M, Tada Y, Yokogawa T, Higuchi M, Hanada K, Matui M, Hirayama T, Kusunoki K, **Koyama H, Yamamoto YY**.
 “Transcriptome analysis of the H₂O₂ response in Arabidopsis and partial identification of the transcriptional regulatory network”
Plant Physiology, Vol.180(3), pp.1629-1646, 2019/07
- [19] Hieno A, Naznin HA, Inaba-Hasegawa K, Yokogawa T, Hayami N, Nomoto M, Tada Y, Yokogawa T, Higuchi-Takeuchi M, Hanada K, Matsui M, Ikeda Y, Hojo Y, Hirayama T, Kusunoki K, **Koyama H, Yamamoto YY**.
 “Transcriptome analysis and identification of a transcriptional regulatory network in the response to H₂O₂.”
Plant Physiol, Vol.180(3), pp.1629-1646, 2019/07
- [20] Hieno A, Naznin HA, **Yamamoto YY**.
 “H₂O₂-mediated biotic and abiotic stress responses in plants.”
 In “ROS homeostasis in plants”, Panda SK and Yamamoto YY (eds), *Springer Nature*, pp.19-42, 2019
- [21] Ito H, **Kobayashi Y, Yamamoto YY, Koyama H**.
 “Characterization of NtSTOP1-regulating genes in tobacco under aluminum stress”
Soil Sci Plant Nutr, Vol.65(3), pp.251-258, 2019

- [22] Kader MA, Nakamura K, **Senge M**, Mojid MA, Kawashima S.
“Numerical simulation of water- and heat-flow regimes of mulched soil in rain-fed soybean field in central Japan”
Soil and Tillage Research, Vol.191, pp.142-155, 2019/08
- [23] **Kato S.**
“Assessing Negative and Positive Phototropism in Lianas.”
Methods Mol Biol., Vol.1924, pp.19-26, 2019
- [24] Kimihito Nakamura, Le Xuan Quang, Tran Hung, Nguyen Van Tinh, Soken Matsuda, Kengo Kadota, Haruhiko Horino, Pham Thanh Hai, Hirotaka Komatsu, Kiyoshi Hasegawa, Shinji Fukuda, Junya Hirata, Noriko Oura, Ayaka W. Kishimoto-Mo, Seiichiro Yonemura, **Takeo Onishi**.
“Effect of organizational paddy water management by water users’ group on methane and nitrous oxide emissions and rice yield in the Red River Delta, Vietnam”
Agricultural Water Management, Vol.217, pp.179-192, 2019/05/20
- [25] Kundu A, Das S, Basu S, Kobayashi Y, **Kobayashi Y**, **Koyama H**, Ganesan M.
“GhSTOP1, a C2H2 type zinc finger transcription factor is essential for Aluminum and proton stress tolerance and lateral root initiation in cotton.”
Plant Biol (Stuttg)., Vol.21(1), pp.35-44, 2019/01
- [26] Le Xuan Quang, Kimihito Nakamura, Tran Hung, Nguyen Van Tinh, Soken Matsuda, Kengo Kadota, Haruhiko Horino, Pham Thanh Hai, Hirotaka Komatsu, Kiyoshi Hasegawa, Shinji Fukuda, Junya Hirata, Noriko Oura, Ayaka W. Kishimoto-Mo, Seiichiro Yonemura, **Takeo Onishi**.
“Effect of organizational paddy water management by a water user group on methane and nitrous oxide emissions and rice yield in the Red River Delta, Vietnam”
AGRICULTURAL WATER MANAGEMENT, Vol.217, pp.179-192, 2019/05/20
- [27] Liujie Wu, Ayan Sadhukhan, **Yuriko Kobayashi**, Naohisa Ogo, Mutsumoto Tokizawa, Raj Kishan Agrahari, Hiroki Ito, Satoshi Iuchi, Masatomo Kobayashi, Akira Asai, **Hiroyuki Koyama**.
“Involvement of phosphatidylinositol metabolism in aluminum-induced malate secretion in *Arabidopsis*”
Journal of Experimental Botany, Volume, Vol.70(12), pp.3329-3342, 2019/06
- [28] Luthfan Nur, Habibi, Komariah, Dwi Priyo Arianto, Jauhari Syamsiyah, Takashi S. T. Tanaka.
“Estimation of Soil Organic Matter on Paddy Field Using Remote Sensing Method”
SAINS TANAH - Journal of Soil Science and Agroclimatology, Vol.16(2), pp.159-168, 2019/12
- [29] Malek Marian, Akio Morita, **Hiroyuki Koyama**, Haruhisa Suga, **Masafumi Shimizu**.
“Enhanced biocontrol of tomato bacterial wilt using the combined application of *Mitsuaria* sp. TWR114 and nonpathogenic *Ralstonia* sp. TCR112.”
Journal of General Plant Pathology, Vol.85(2), pp.142-154, 2019/01
- [30] Malek Marian, **Masafumi Shimizu**.
“Improving performance of microbial biocontrol agents against plant diseases.”
Journal of General Plant Pathology, Vol.85(5), pp.329-336, 2019/09
- [31] Marian M, Morita A, **Koyama H**, Suga H, **Shimizu M**.
“Enhanced biocontrol effect using the combined application of *Mitsuaria* sp. TWR114 and non-pathogenic *Ralstonia* sp. TCR112 for controlling tomato bacterial wilt”
Journal of General Plant Pathology, Vol.85, pp.142-154, 2019
- [32] Masanto, Hieno A, Wibowo A, Subandhiyah S, **Shimizu M**, Suga H, Kageyama K.
“Genetic diversity of *Phytophthora palmivora* isolates from Indonesia and Japan using rep-PCR and microsatellite markers.”
Journal of General Plant Pathology, Vol.85, pp.367-381, 2019
- [33] **Matsumura S**, Beardmore B, Haider W, Dieckmann U, Arlinghaus R.
“Ecological, angler and spatial heterogeneity drive social and ecological outcomes in an integrated landscape model of freshwater recreational fisheries.”
Reviews in Fisheries Science and Aquaculture, Vol.27(2), pp.170-197, 2019

- [34] Muren, **Kusuda S**, Yang Bingshan, Gegentuya, Chen Xia, Wang Yueyue, Fu Shasha, Chen Chunchun. “The distribution and rhythm of diurnal activity time of cage-rearing Francois' langur (*Trachypithecus francoisi*).” *Heilongjiang Animal Science and Veterinary Medicine*, Vol.13, pp.140-145, 2019
- [35] **Moribe J**, Fujimoto A, Tokita Y. “Development of a data notification system using GEO-WAVE” *IEICE Communications Express*, Vol.8(12), pp.536-541, 2019/12
- [36] Nakajima N, Doi K, Tamiya s, **Yayota M**. “Effects of direct exposure to cold weather under grazing in winter on the physiological, immunological, and behavioral conditions of Japanese Black beef cattle in central Japan.” *Animal Science Journal*, Vol.90(8), pp.1033-1041, 2019/08
- [37] Nakajima N, **Yayota M**. “Grazing and cattle health: a nutritional, physiological, and immunological status perspective.” *Animal Behaviour and Management*, Vol.55(4), pp.143-145, 2019
- [38] **Ninomiya S**. “Grooming Device Effects on Behaviour and Welfare of Japanese Black Fattening Cattle” *Animals(Basel)*, Vol.9(4), pp.186, 2019/04
- [39] **Noda K**, Iida A, Watanabe S, Osawa K. “Efficiency and Sustainability of Land-Resource use on a Small Island” *Environmental Research Letters*, Vol.14(5), pp.54004, 2019
- [40] **Ochiai M**, Wu W, Funahashi S, Sugimoto H, Fukui H. “Breeding of posterity crossing between cut rose cultivar ‘PEKcougel’ and tetraploid Rosa multiflora” *Acta Horticulturae*, Vol.1232, pp.63-68, 2019
- [41] Panda SK, **Yamamoto YY**.(eds) “REDOX homeostasis in plants.” *Springer Nature*, 2019, ISBN 978-3-319-95314-4.
- [42] Pramudya Y, **Onishi T**, Senge M, **Hiramatsu K**, Nur PMR, Komariah. “Evaluation of recent drought conditions by standardized precipitation index and potential evapotranspiration over Indonesia” *Paddy and Water Environment*, Vol.17(3), pp.331-338, 2019/07
- [43] Pramudya Y, **Onishi T**, Senge M, **Hiramatsu K**, Nur PMR, Komariah. “Correction to: Evaluation of recent drought conditions by standardized precipitation index and potential evapotranspiration over Indonesia” *Paddy and Water Environment*, Vol.17, pp.339, 2019/07
- [44] Priyo Cahyono, Supriyono Loekito, Didin Wiharso, Afandi, Ali Rahmat, **Naomasa Nishimura, Keigo Noda, Senge Masateru**. “Influence of Liming on Soil Chemical Properties and Plant Growth of Pineapple (*Ananas Comusus* L.Merr.) On Red Acid Soil, Lampung, Indonesia” *Communications in Soil Science and Plant Analysis*, Vol.50(22), pp.2797-2803, 2019/12
- [45] Rahmat A, Ariyanto DP, **Noda K**, **Onishi T**, **Ito K**, **Senge M**. “Hydrological Characteristics under deciduous broadleaf and evergreen coniferous forests in central Japan” *International Journal of GEOMATE*, Vol.16(54), pp.217-224, 2019
- [46] Sadhukhan A, Enomoto T, **Kobayashi Y**, Watanabe T, Iuchi S, Kobayashi M, Sahoo L, **Yamamoto YY**, **Koyama H**. “Sensitive to Proton Rhizotoxicity1 Regulates Salt and Drought Tolerance of *Arabidopsis thaliana* through Transcriptional Regulation of CIPK23” *Plant Cell Physiol*, Vol.60(9), pp.2113-2126, 2019/09

- [47] Sato F, **Otsuka T**, Kohsaka A, Le HT, Bhawal UK, Muragaki Y.
“Smad3 suppresses epithelial cell migration and proliferation via the clock gene Dec1, which negatively regulates the expression of clock genes Dec2 and Per1”
The American Journal of Pathology, Vol.189(4), pp.773-783, 2019/04
- [48] Shimma K, **Tadano R**.
“Genetic Differentiation among Commercial Lines of Laying-type Japanese Quail”
The Journal of Poultry Science, Vol.56(1), pp.12-19, 2019
- [49] Singkone Xayalath, **Isao Hirota**, Shinsuke Tomita, Michiko Nakagawa.
“Allometric equations for estimating the aboveground biomass of bamboos in northern Laos”
Journal of Forest Research, Vol.24(2), pp.115-119
- [50] Suetsugu K, **Okamoto T**, Kato M.
“Mushroom attracts hornets for spore dispersal by a distinctive yeasty scent.”
Ecology, Vol.100(8), pp.e02718, 2019/08
- [51] Sultana S, Kitajima M, Kobayashi H, Nakagawa H, **Shimizu M**, Kageyama K, Suga H.
“A natural variation of fumonisin gene cluster associated with fumonisin production difference in *Fusarium fujikuroi*.”
Toxins(Basel), Vol.11(4), pp.200, 2019/04
- [52] **Tadano R**, **Kusuda S**, Toyoda H.
“Paternity determination of captive southern pudu (*Pudu puda*) using bovine and ovine microsatellite markers”
Japanese Journal of Zoo and Wildlife Medicine, Vol.24(1), pp.21-25, 2019
- [53] **Tanaka TST**, Kono Y, **Matsui T**.
“Assessing the spatial variability of winter wheat yield in large-scale paddy fields of Japan using structural equation modelling”
Precision agriculture 2019, pp.751-757, 2019/07
- [54] Tani K, Okada T, Shirasagi S, Kimura H, Ogawa K, **Nishiyama T**, Seiki T.
“Standardization activity for method of in-situ triaxial compression test and direct tension test on rock masses”
YSRM2019 & REIF2019, ISRM2019 Specialized Conference, 2019/12
- [55] Tomoki Nishioka, Malek Marian, Issei Kobayashi, Yuhko Kobayashi, Kyosuke Yamamoto, Hideyuki Tamaki, Haruhisa Suga, **Masafumi Shimizu**.
“Microbial basis of *Fusarium* wilt suppression by *Allium* cultivation”
Scientific Reports, Vol.9(1), pp.1715, 2019/02
- [56] **Tsuchida K**, Yamaguchi A, Kanbe Y, Goka K.
“Reproductive Interference in an Introduced Bumblebee: Polyandry may Mitigate Negative Reproductive Impact”
Insects, Vol.10(2), pp.59, 2019/02
- [57] Yanti Y, Kawai S, **Yayota M**.
“Effect of total mixed ration silage containing agricultural by-products with the fermented juice of epiphytic lactic acid bacteria on rumen fermentation and nitrogen balance in ewes.”
Tropical Animal Health and Production, Vol.51(5), pp.1141-1149, 2019/06
- [58] Yanti Y, **Yayota M**.
“Effect of epiphytic lactic acid bacteria fermented juice inclusion on quality of total mixed ration silage of agricultural and food by-products.”
Indian Journal of Animal Science, Vol.89(9), 2019
- [59] Zhang P, Dai Y, **Senge M**, Mori N.
“Interactive Influences of Salinity Stress and Leaf Thinning on the Growth, Yield, Water use Efficiency, and Fruit Quality of Cherry Tomatoes”
Communications in Soil Science and Plant Analysis, Vol.50(8), pp.1003-1012, 2019

- ※1 Also recorded on Course of Applied Life Science
- ※2 Also recorded on Course of Applied Life Science
- ※5 Also recorded on Department of Veterinary Medicine
- ※6 Also recorded on Department of Veterinary Medicine
- ※7 Also recorded on Research Center for Wildlife Management

【Joint Department of Veterinary Medicine】

- [1] ※⁵Abe N, Matsuo K, Moribe J, **Takashima Y**, Baba T, Gjerde B.
“Molecular differentiation of five *Sarcocystis* species in sika deer (*Cervus nippon centralis*) in Japan based on mitochondrial cytochrome c oxidase subunit I gene (*coxl*) sequences”
Parasitol Res., Vol.118(6), pp.1975-1979, 2019/06
- [2] ※⁶Abe N, Matsuo K, Moribe J, **Takashima Y**, Irie T, Baba T, Gjerde B.
“Morphological and molecular characteristics of seven *Sarcocystis* species from sika deer (*Cervus nippon centralis*) in Japan, including three new species”
IJP Parasite and Wildlife, Vol.10, pp.252-262, 2019/12
- [3] Akiyama S, Asahina R, Ohta H, Tsukui T, Nishida H, **Kamishina H, Maeda S.**
“Th17 cells increase during maturation in peripheral blood of healthy dogs.”
Veterinary immunology and immunopathology, Vol.209, pp.17-21, 2019/03
- [4] Akter QS, Rajabi-Toustani R, Shimizu K, Kuwahara Y, **Murase T.**
“Polymyxin B enhances acrosomal exocytosis triggered by calcium and the calcium ionophore A23187 in ejaculated boar spermatozoa.”
Anim. Sci. J., Vol.90(6), pp.705-711, 2019/06
- [5] Almunia J, Nakamura K, **Murakami M, Takashima S, Mori T, Takasu M.**
“Sexual precocity in male microminipigs evaluated immunohistologically using spermatogonial stem cell markers”
Theriogenology, Vol.130, pp.120-124, 2019/05
- [6] Alom F, **Matsuyama H**, Nagano H, Fujikawa S, Tanahashi Y, **Unno T.**
“Involvement of transient receptor potential melastatin 4 channels in the resting membrane potential setting and cholinergic contractile responses in mouse detrusor and ileal smooth muscles.”
J. Vet. Med. Sci., Vol.81(2), pp.217-228, 2019/02
- [7] Ando A, Imaeda N, **Matsubara T, Takasu M**, Miyamoto A, Oshima S, **Nishii N**, Kametani Y, **Shiina T**, Kulski JK, Kitagawa H.
“Genetic association between swine leukocyte antigen class II haplotypes and reproduction traits in Microminipigs.”
Cells., Vol.8(8), pp.783, 2019/08
- [8] Appiah-Kwarteng C, Saito T, Toda N, **Kitoh K**, Nishikawa Y, Adenyo C, Kayang B, Owusu EO, Ohya K, Inoue-Murayama M, Kawahara F, Nagamune K, **Takashima Y.**
“Native SAG1 in *Toxoplasma gondii* lysates is superior to recombinant SAG1 for serodiagnosis of *T. gondii* infections in chickens”
Parasitology international, Vol.69, pp.114-120, 2019/04
- [9] **Atoji Y**, Sarkar S.
“Gene expression of AMPA, kainate, and NMDA receptor subunits in the pigeon spinal cord.”
Journal of chemical neuroanatomy, Vol.96, pp.148-156, 2019/03
- [10] **Atoji Y**, Sarkar S.
“Localization of AMPA, kainate, and NMDA receptor mRNAs in the pigeon cerebellum.”
Journal of chemical neuroanatomy, Vol.98, pp.71-79, 2019/07
- [11] **Atoji Y**, Wild JM.
“Projections of the densocellular part of the hyperpallium in the rostral Wulst of pigeons (*Columba livia*).”
Brain research, Vol.1711, pp.130-139, 2019/05

- [12] Elbadawy M, Usui T, **Mori T**, Tsunedomi R, Hazama S, Nabeto R, Uchide T, Fukushima R, Yoshida T, Shibusawa M, Tanaka T, Masuda S, Okada R, Ichikawa R, Omatsu T, Mizutani T, Katayama Y, Noguchi S, Iwai S, Nakagawa T, Shinohara Y, Kaneda M, Yamawaki H, Sasaki K.
 “Establishment of a novel experimental model for muscle-invasive bladder cancer by using dog bladder cancer organoid culture.”
Cancer science, Vol.110(9), pp.2806-2821, 2019/09
- [13] El-Habashi N, El-Nahass ES, Abd-Ellatief H, Saleh A, Abas O, Tsuchiya Y, **Fukushi H**, Yanai T.
 “Lesions and Distribution of Viral Antigen in the Brain of Hamsters Infected With Equine Herpesvirus (EHV)-9, EHV-1 Strain Ab4p, and Zebra-Borne EHV-1.”
Veterinary pathology, Vol.56(5), pp.691-702, 2019/09
- [14] Fujioka T, Nakata K, Nishida H, Sugawara T, Konno N, **Maeda S**, **Kamishina H**.
 “A novel patient-specific drill guide template for stabilization of thoracolumbar vertebrae of dogs: cadaveric study and clinical cases.”
Vet Surg., Vol.48(3), pp.336-342, 2019/04
- [15] Furusawa Y, Yamada S, Itai S, Sano M, Nakamura T, Yanaka M, Fukui M, Harada H, Mizuno T, Sakai Y, **Takasu M**, Kaneko MK, Kato Y.
 “Mab-210: A Monoclonal Antibody Against Pig Podoplanin.”
Monoclonal antibodies in immunodiagnosis and immunotherapy, Vol.38(1), pp.30-36, 2019/02
- [16] Goto M, Hirata A, **Murakami M**, **Sakai H**.
 “Trimer form of tumor necrosis factor-related apoptosis inducing ligand induces apoptosis in canine cell lines derived from mammary tumors.”
J. Vet. Med. Sci, Vol.81(12), pp.1791-1803, 2019/12
- [17] Goto M, Owaki K, Hirata A, Yanai T, **Sakai H**.
 “Tumor necrosis factor-related apoptosis inducing ligand induces apoptosis in canine hemangiosarcoma cells in vitro.”
Vet. Comp. Oncol., Vol.17(3), pp.285-297, 2019/09
- [18] Heishima K, Kuo K, Kimura M, **Mori T**.
 “Animal Lymphocyte Metaphase Chromosome Preparation.”
Methods in molecular biology (Clifton, N.J.), pp.7-22, 2019
- [19] Heishima K, Meuten T, Yoshida K, **Mori T**, Thamm DH.
 “Prognostic significance of circulating microRNA-214 and -126 in dogs with appendicular osteosarcoma receiving amputation and chemotherapy”
BMC veterinary research, Vol.15(1), pp.39, 2019
- [20] Hirata A, Kaneko A, **Sakai H**, Nakamura S, Yanai T, Miyabe-Nishiwaki T, Suzuki J.
 “T-cell/histiocyte-rich large B cell lymphoma of the larynx in a juvenile Japanese Macaques (*Macaca fuscata*).”
J. Comp. Pathol., Vol.169, pp.1-4, 2019/05
- [21] Hirata A, Miyamoto Y, Kaneko A, **Sakai H**, Yoshizaki K, Yanai T, Miyabe-Nishiwaki T, Suzuki J.
 “Hepatic neuroendocrine carcinoma in a Japanese macaque (*Macaca fuscata*).”
J Med Primatol., Vol.48(2), pp.137-140, 2019/04
- [22] Horii K, **Shiina T**, Naitou K, Nakamori H, Horii Y, Shimaoka H, **Shimizu Y**.
 “Characterization of peristaltic motility in the striated muscle portion of the esophagus using a novel in vivo method in rats.”
Neurogastroenterol Motil., Vol.31(4), pp.e13518, 2019/04
- [23] Horii K, Suzuki Y, **Shiina T**, **Saito S**, Onouchi S, Horii Y, Shimaoka H, **Shimizu Y**.
 “ATP-dependent potassium channels contribute to motor regulation of esophageal striated muscle in rats.”
J Vet Med Sci., Vol.81(9), pp.1266-1272, 2019

- [24] Horii Y, Shimaoka H, Horii K, **Shiina T, Shimizu Y**.
“Mild hypothermia causes a shift in the alternative splicing of cold-inducible RNA-binding protein transcripts in Syrian hamsters.”
Am. J. Physiol. Regul. Integr. Comp. Physiol., Vol.317(2), pp.R240-R247, 2019/08/01
- [25] Horii Y, **Shiina T**, Uehara S, Nomura K, Shimaoka H, Horii K, **Shimizu Y**.
“Hypothermia induces changes in the alternative splicing pattern of cold-inducible RNA-binding protein transcripts in a non-hibernator, the mouse.”
Biomed. Res., Vol.40(4), pp.153-161, 2019
- [26] Hosokawa-Muto J, **Sakai H**, Sassa Y, Fujinami Y, Kishimoto M, Nakahara H.
“Rapid detection of pathogenic virus genome sequence from throat and nasal swab samples using an exhaustive gene amplification method.”
Forensic Sci. Med. Pathol., Vol.15(3), pp.399-403, 2019/09
- [27] Hossain MA, Larrous F, Rawlinson SM, Zhan J, Sethi A, Ibrahim Y, Alois M, Lieu KG, Mok YF, Griffin MDW, **Ito N**, Ose T, Bourhy H, Moseley GW, Gooley PR.
“Structural Elucidation of Viral Antagonism of Innate Immunity at the STAT1 Interface”
Cell Rep., Vol.29(7), pp.1934-1945, 2019/11/12
- [28] ^{※8}Ikeda T, Kuninaga N, Suzuki T, Ikushima S, **Suzuki M**.
“Tourist-wild boar (*Sus scrofa*) interactions in urban wildlife management”
Global Ecology and Conservation, Vol.18, pp.e00617, 2019/04
- [29] **Inoshima Y**, Iwata A, **Okada A**.
“Up-regulation of serum amyloid A3 mRNA expression after stimulation with lipopolysaccharide and lipoteichoic acid in mouse lung cells”
Amyloid, Vol.26(Sup.1), pp.117-118, 2019/03
- [30] Itoh T, **Kawabe M**, Nagase T, Endo K, Miyoshi M, Miyahara K.
“Measurements of body surface area and volume in male Japanese White rabbits using a computed tomography scanner: comparison with male New Zealand White rabbits.”
Exp Anim, Vol.68(4), pp.429-434, 2019
- [31] Ito T, Okusaka T, Nishida T, Yamao K, Igarashi H, Morizane C, Kondo S, Mizuno N, Hara K, Sawaki A, Hashigaki S, Kimura N, **Murakami M**, Ohki E, Chao RC, Imamura M.
“Correction to: Phase II study of sunitinib in Japanese patients with unresectable or metastatic, well-differentiated pancreatic neuroendocrine tumor.”
Investigational new drugs, Vol.37(3), pp.591, 2019/06
- [32] ^{※9}Iwasaki R, Shimosato Y, Yoshikawa R, Goto S, Yoshida K, **Murakami M**, **Kawabe M**, **Sakai H**, **Mori T**.
“Survival analysis in dogs with urinary transitional cell carcinoma that underwent whole - body computed tomography at diagnosis”
Veterinary and comparative oncology, Vol.17(3), pp.385-393, 2019/09
- [33] Iwasa N, **Nishii N**, **Takashima S**, **Kobatake Y**, Nomura S, Iwasa K, Iwasa T, Suzuki T, Machida N, Kitagawa H.
“Long-term management of high-grade atrioventricular block using cilostazol in a cat.”
JFMS Open Rep, Vol.5(2), pp.2055116919878913, 2019/10
- [34] Iwasa N, **Takashima S**, Iwasa T, Iwasa K, Suzuki T, Kumazawa R, Nomura S, **Kobatake Y**, Kitagawa H, **Nishii N**.
“Evaluation of monitoring methods in asymptomatic dogs with high serum cystatin C concentrations”
J Vet Med Sci., Vol.81(12), pp.1730-1734, 2019/12
- [35] ^{※10}Iwashita T, Uemura S, Shimizu M, Hyodo F, Tomita H, Iwasaki R, **Takasu M**, **Mori T**, Tanaka H, Matsuo M.
“Endoscopic Ultrasound-Guided Fine-Needle Injection of Hydrogen Peroxide into the Pancreas: Feasibility and Tolerability Study Using a Survival Porcine Model”
Ultrasound in medicine & biology, Vol.45(2), pp.579-585, 2019

- [36] Iwata A, Shimizu K, Kawasaki H, **Okada A, Inoshima Y.**
 “Lipopolysaccharide and lipoteichoic acid enhance serum amyloid A3 mRNA expression in murine alveolar epithelial cells”
The Journal of Veterinary Medical Science, Vol.81(10), pp.1409-1412, 2019
- [37] *³Jiang L, Yanase E, **Mori T**, Kurata K, Toyama M, Tsuchiya A, Yamauchi K, Mitsunaga T, Iwahashi H, Takahashi J.
 “Relationship between Flavonoid Structure and Reactive Oxygen Species Generation upon Ultraviolet and X-ray Irradiation”
Journal of Photochemistry and Photobiology A: Chemistry, Vol.384, pp.112044, 2019/11/01
- [38] **Kamishina H**, Sugawara T, Nakata K, Nishida H, Yada N, Fujioka T, Nagata Y, Doi A, Konno N, Uchida F, **Maeda S.**
 “Clinical application of 3D printing technology to the surgical treatment of atlantoaxial subluxation in small breed dogs.”
PloS one, Vol.14(5), pp.e0216445, 2019/05/03
- [39] *¹¹**Kawabe M**, Kitajima Y, **Murakami M**, Iwasaki R, Goto S, **Sakai H, Mori T.**
 “Hypofractionated radiotherapy in nine dogs with unresectable solitary lung adenocarcinoma”
Veterinary Radiology & Ultrasound, Vol.60(4), pp.456-464, 2019/07
- [40] Kimura H, Imura Y, Tomiyasu H, Kaji N, Ohno K, **Unno T**, Tanahashi Y, Jan T, Tsubone H, Ozaki H, Hori M.
 “Neural anti-inflammatory action mediated by two types of acetylcholine receptors in the small intestine.”
Sci. Rep., Vol.9, pp.5887, 2019/10
- [41] Kobayashi I, Akita M, **Takasu M**, Tozaki T, Kakoi H, Nakamura K, Senju N, Matsuyama R, Horii Y.
 “Genetic characteristics of feral Misaki horses based on polymorphisms of microsatellites and mitochondrial DNA.”
The Journal of veterinary medical science, Vol.81(5), pp.707-711, 2019/05/11
- [42] Kuninaga N, **Asano M**, Matsuyama R, Minemoto T, Mori T, **Suzuki M.**
 “Serological and histological evaluation of species-specific immunocontraceptive vaccine antigens based on zona pellucida 3 in the small Indian mongoose (*Herpestes auropunctatus*).”
The Journal of veterinary medical science, Vol.81(2), pp.328-337, 2019/02
- [43] Matsumoto H, Setoyama H, Matsuura Y, Ohtani A, Shimizu K, **Okada A, Inoshima Y.**
 “Sequential detection of pseudocowpox virus and bovine papular stomatitis virus in a same calf in Japan”
The Journal of Veterinary Medical Science, Vol.81(3), pp.440-443, 2019/03
- [44] Matsuyama R, Yabusaki T, Senju N, Okano T, Baba M, Tsuji-Matsukane T, Yokoyama M, Kido N, Kadosaka T, Kato T, **Suzuki M, Asano M.**
 “Possible transmission of Sarcoptes scabiei between herbivorous Japanese serows and omnivorous Caniformia in Japan: a cryptic transmission and persistence?”
Parasites & Vectors, Vol.12, pp.389, 2019
- [45] Mohamed Elbadawy, Tatsuya Usui, **Takashi Mori**, Ryouichi Tsunedomi, Shoichi Hazama, Rina Nabeta, Tsuyoshi Uchide, Ryuji Fukushima, Toshinori Yoshida, Makoto Shibusawa, Takaharu Tanaka, Sosuke Masuda, Rena Okada, Ryo Ichikawa, Tsutomu Omatsu, Tetsuya Mizutani, Yukie Katayama, Shunsuke Noguchi, Satomi Iwai, Takayuki Nakagawa, Yuta Shinohara, Masahiro Kaneda, Hideyuki Yamawaki, Kazuaki Sasaki.
 “Establishment of a novel experimental model for muscle-invasive bladder cancer using a dog bladder cancer organoid culture.”
Cancer science, Vol.110(9), pp.2806-2821, 2019/09
- [46] Moni MIZ, Hayashi K, Sicakumar T, Rahman M, Nahar L, Islam MZ, Yokoyama N, **Kitoh K, Appiah-Kwarteng C, Takashima Y.**
 “First molecular detection of Theileria annulata in Bangladesh.”
J. Vet. Med. Sci., Vol.81(8), pp.1197-1200, 2019/08/24

- [47] ^{※4}Moriyama A, Hasegawa T, Lei J, Iwahashi H, **Mori T**, Takahashi J.
“Screening of X-ray responsive substances for the next generation of radiosensitizers”
Scientific Report, Vol.9, pp.225, 2019
- [48] Nakamori H, Naitou K, Horii Y, Shimaoka H, Horii K, **Sakai H**, Yamada A, Furue H, **Shiina T**, **Shimizu Y**.
“Roles of the noradrenergic nucleus locus caeruleus and dopaminergic nucleus A11 region as supraspinal defecation centers in rats.”
Am J Physiol Gastrointest Liver Physiol., Vol.317(4), pp.G545-G555, 2019/10
- [49] Nakamura K, Tozaki T, Kakoi H, Owada S, **Takasu M**.
“Variation in the MC1R, ASIP, and MATP genes responsible for coat color in Kiso horse as determined by SNaPshot™ genotyping.”
The Journal of veterinary medical science, Vol.81(1), pp.100-102, 2019/01
- [50] Nakata K, Heishima K, **Sakai H**, Yamato O, Furusawa Y, Nishida H, **Maeda S**, **Kamishina H**.
“Plasma microRNA miR-26b as a potential diagnostic biomarker of degenerative myelopathy in Pembroke welsh corgis.”
BMC veterinary research, Vol.15(1), pp.192, 2019/06/10
- [51] Narita M, Nishida H, Asahina R, Nakata K, Yano H, Ueda T, Inden M, Akiyoshi H, **Maeda S**, **Kamishina H**.
“Identification of reference genes for microRNAs of extracellular vesicles isolated from plasma samples of healthy dogs by ultracentrifugation, precipitation, and membrane affinity chromatography methods.”
American journal of veterinary research, Vol.80(5), pp.449-454, 2019/05
- [52] Nishida H, Nakata K, **Maeda S**, **Kamishina H**.
“Prevalence and pattern of thoracolumbar caudal articular process anomalies and intervertebral disk herniations in pugs.”
The Journal of veterinary medical science, Vol.81(6), pp.906-910, 2019
- [53] Nishida H, Yamazaki M, **Sakai H**, **Maeda S**, **Kamishina H**.
“Intracranial ectopic choroid plexus cyst in a dog.”
The Journal of veterinary medical science, Vol.81(3), pp.365-368, 2019/03
- [54] Nishii N, Okada R, Matsuba M, **Takashima S**, **Kobatake Y**, Kitagawa H.
“Risk factors for low plasma thyroxine and high plasma thyroid-stimulating hormone concentrations in dogs with non-thyroidal diseases”
J Vet Med Sci., Vol.81(8), pp.1097-1103, 2019
- [55] Noguchi S, Ogusu R, Wada Y, Matsuyama S, **Mori T**.
“PTEN, A Target of MicroRNA-374b, Contributes to the Radiosensitivity of Canine Oral Melanoma Cells.”
International journal of molecular sciences, Vol.20(18), pp.4631, 2019/09
- [56] Nurliani A, Sasaki M, Budipitjo T, Tsubota T, **Suzuki M**, Kitamura N.
“An immunohistochemical study on testicular steroidogenesis in the Sunda porcupine (*Hystrix javanica*).”
The Journal of veterinary medical science, Vol.81(9), pp.1285-1290, 2019/09
- [57] Ogino M, Fedorov Y, Adams DJ, Okada K, **Ito N**, **Sugiyama M**, Ogino T
“Vesiculopolins, a new class of anti-vesiculoviral compounds, inhibit transcription initiation of vesiculoviruses.”
Viruses, Vol.11(9), pp.E856, 2019/09/14
- [58] Ohno Y, Akune Y, **Inoshima Y**, Kano R.
“First isolation of voriconazole-resistant *Candida albicans*, *C. tropicalis*, and *Aspergillus niger* from the blowholes of bottlenose dolphins (*Tursiops truncatus*).”
The Journal of Veterinary Medical Science, Vol.81(11), pp.1628-1631, 2019/11
- [59] Ohno Y, Akune Y, Nitto H, **Inoshima Y**.
“Leukopenia induced by micafungin in a bottlenose dolphin (*Tursiops truncatus*): a case report.”
The Journal of Veterinary Medical Science, Vol.81(3), pp.449-453, 2019/03

- [60] **Okada A**, Kobayashi S, **Inoshima Y**.
 “Detection frequency of porcine noroviruses in healthy pigs in Japan”
Japan Agricultural Research Quarterly, Vol.53(4), pp.305-310, 2019
- [61] Rahman MM, Shimizu K, Yamauchi M, Takase H, Ugawa S, **Okada A**, **Inoshima Y**.
 “Acidification effects on isolation of extracellular vesicles from bovine milk”
PLoS One, Vol.14(9), pp.e0222613, 2019/09/16
- [62] Rajabi-Toustani R, Akter QS, Almadaly EA, Hoshino Y, Adachi H, Mukoujima K, **Murase T**.
 “Methodological improvement of fluorescein isothiocyanate peanut agglutinin (FITC-PNA) acrosomal integrity staining for frozen-thawed Japanese Black bull spermatozoa.”
J. Vet. Med. Sci., Vol.81(5), pp.694-702, 2019/05
- [63] Shiori Gamo, Teruaki Tozaki, Hironaga Kakoi, Kei-Ichi Hirota, Kotono Nakamura, Noriko Nishii, Julio Alumunia, **Masaki Takasu**.
 “X monosomy in the endangered Kiso horse breed detected by a parentage test using sex chromosome linked genes and microsatellites.”
The Journal of veterinary medical science, Vol.81(1), pp.91-94, 2019
- [64] **Takashima S**, **Nishii N**, **Kobatake Y**, Kiyosue M, Kimura S, Kitagawa H.
 “Concentrations of leptin, adiponectin, and resistin in the serum of obese cats during weight loss.”
J Vet Med Sci., Vol.81(9), pp.1294-1300, 2019/09
- [65] ^{※12}**Takashima S**, Takitani S, Kitamura M, **Nishii N**, Kitagawa H, Shibata S.
 “Effect of cyclooxygenase-2 inhibitors at therapeutic doses on body temperature during anesthesia in healthy dogs administered with amino acids.”
J Vet Med Sci., Vol.81(9), pp.1379-1384, 2019/09
- [66] ^{※13}Tanaka H, Kawaguchi M, Shoda S, Miyoshi T, Iwasaki R, Hyodo F, **Mori T**, Hara A, Tomita H, Matsuo M.
 “Nuclear Accumulation of β-Catenin in Cancer Stem Cell Radioresistance and Stemness in Human Colon Cancer.”
Anticancer research, Vol.39(12), pp.6575-6583, 2019/12
- [67] Taniguchi Y, Yanagihara I, Nakura Y, Ichikawa C, Saito T, Appiah-Kwarteng C, Matsuzaki M, Fukumoto J, Nagamune K, Kyan H, **Takasu M**, **Kitoh K**, **Takashima Y**.
 “A Toxoplasma gondii strain isolated in Okinawa, Japan shows high virulence in Microminipigs”
Parasitol. Int., Vol.72, pp.101935, 2019/10
- [68] Tercero B, Terasaki K, **Nakagawa K**, Narayanan K, Makino S.
 “A strand-specific real-time quantitative RT-PCR assay for distinguishing the genomic and antigenomic RNAs of Rift Valley fever Phlebovirus.”
Journal of virological methods, Vol.272, pp.113701, 2019/10
- [69] Teruaki Tozaki, Aoi Ohnuma, **Masaki Takasu**, Mio Kikuchi, Hironaga Kakoi, Kei-Ichi Hirota, Kanichi Kusano, Shun-Ichi Nagata.
 “Droplet Digital PCR Detection of the Erythropoietin Transgene from Horse Plasma and Urine for Gene-Doping Control.”
Genes, Vol.10(3), pp.243, 2019/03
- [70] Tezuka A, **Takasu M**, Tozaki T, Nagano AJ.
 “Genetic analysis of Taishu horses on and off Tsushima Island: Implications for conservation.”
Journal of equine science, Vol.30(2), pp.33-40, 2019/07
- [71] Tozaki T, Kikuchi M, Kakoi H, Hirota KI, Nagata SI, Yamashita D, Ohnuma T, **Takasu M**, Kobayashi I, Hobo H, Manglai D, Petersen JL.
 “Genetic diversity and relationships among native Japanese horse breeds, the Japanese Thoroughbred and horses outside of Japan using genome - wide SNP data”
Animal Genetics, Vol.50(5), pp.449-459, 2019/10

- [72] Wada Y, Noguchi S, Nishiyama Y, Matsuyama S, **Mori T**, Igase M, Mizuno T, Shimamura S, Shimada T. “MicroRNA-205 enhances the radiosensitivity of canine oral melanoma cells by inhibiting E2F1” *Japanese Journal of Veterinary Research*, Vol.67(2), pp.151-161, 2019/05
- [73] Yamada A, Makita K, Kadokawa H, **Ito N**, **Sugiyama M**, Kwan NCL, Sugiura K. “A Comparative Review of Prevention of Rabies Incursion between Japan and Other Rabies-Free Countries or Regions.” *Jpn. J. Infect. Dis.*, Vol.72(4), pp.203-210, 2019/07/24
- [74] Yamauchi M, Shimizu K, Rahman MM, Ishikawa H, Takase H, Ugawa S, **Okada A**, **Inoshima Y**. “Efficient method for isolation of exosomes from raw bovine milk.” *Drug Development and Industrial Pharmacy*, Vol.45(3), pp.359-364, 2019/03
- [75] Yoshikawa R, **Mori T**, Noguchi S, Akao Y, Maruo K, Kitade Y. “Synthetic microRNA - 205 exhibited tumour suppression in spontaneous canine malignant melanoma by intratumoral injection” *Veterinary and comparative oncology*, Vol.17(3), pp.407-412, 2019/09
- [76] Yoshizaki S, Akahori H, Umemura T, Terada T, **Takashima Y**, Muto Y. “Genome-wide analyses reveal genes subject to positive selection in *Toxoplasma gondii*” *Gene*, Vol.699, pp.73-79, 2019/05/30

- ※3 Also recorded on Course of Applied Life Science
- ※4 Also recorded on Course of Applied Life Science
- ※5 Also recorded on Course of Agricultural and Environmental Science
- ※6 Also recorded on Course of Agricultural and Environmental Science
- ※8 Also recorded on Course of Research Center for Wildlife Management
- ※9 Also recorded on Course of Animal Medical Center
- ※10 Also recorded on Course of Animal Medical Center
- ※11 Also recorded on Course of Animal Medical Center
- ※12 Also recorded on Course of Animal Medical Center
- ※13 Also recorded on Course of Animal Medical Center

【Gifu Field Science Center】

- [1] Sarker Umakanta, Sarker Umakanta, **Oba Shinya**. “Salinity stress enhances color parameters, bioactive leaf pigments, vitamins, polyphenols, flavonoids and antioxidant activity in selected Amaranthus leafy vegetables” *Journal of the Science of Food and Agriculture*, Vol.99(5), pp.2275-2284, 2019/03/30

【Animal Medical Center】

- [1] ※⁹**Iwasaki R**, Shimosato Y, Yoshikawa R, Goto S, Yoshida K, Murakami M, Kawabe M, Sakai H, Mori T. “Survival analysis in dogs with urinary transitional cell carcinoma that underwent whole-body computed tomography at diagnosis” *Veterinary and Comparative Oncology*, Vol.17(3), pp.385-393, 2019/09
- [2] ※¹⁰Iwashita T, Uemura S, Shimizu M, Hyodo F, Tomita H, **Iwasaki R**, Takasu M, Mori T, Tanaka H, Matsuo M. “Endoscopic Ultrasound-Guided Fine-Needle Injection of Hydrogen Peroxide into the Pancreas: Feasibility and Tolerability Study Using a Survival Porcine Model” *Ultrasound in medicine & biology*, Vol.45(2), pp.579-585, 2019
- [3] ※¹¹Kawabe M, Kitajima Y, Murakami M, **Iwasaki R**, Goto S, Sakai H, Mori T. “Hypofractionated radiotherapy in nine dogs with unresectable solitary lung adenocarcinoma” *Veterinary Radiology & Ultrasound*, Vol.60(4), pp.456-464, 2019/07

- [4] ^{※12}Takashima S, Takitani S, Kitamura M, Nishii N, Kitagawa H, **Shibata S.**
“Effect of cyclooxygenase-2 inhibitors at therapeutic doses on body temperature during anesthesia in healthy dogs administered with amino acids.”
J Vet Med Sci., Vol.81(9), pp.1379-1384, 2019/09
- [5] ^{※13}Tanaka H, Kawaguchi M, Shoda S, Miyoshi T, **Iwasaki R**, Hyodo F, Mori T, Hara A, Tomita H, Matsuo M.
“Nuclear Accumulation of β-Catenin in Cancer Stem Cell Radioresistance and Stemness in Human Colon Cancer.”
Anticancer research, Vol.39(12), pp.6575-6583, 2019/12

※9 Also recorded on Course of Department of Veterinary Medicine
 ※10 Also recorded on Course of Department of Veterinary Medicine
 ※11 Also recorded on Course of Department of Veterinary Medicine
 ※12 Also recorded on Course of Department of Veterinary Medicine
 ※13 Also recorded on Course of Department of Veterinary Medicine

【Research Center for Wildlife Management】

- [1] ^{※7}Ando M, Nakatsuka S, Aizawa H, Nakamori S, **Ikeda T**, Moribe J, Terada K, Kato K.
“Recognition of wildlife in images taken by camera trap with deep learning”
Mammalian Science, Vol.59(1), pp.49-60, 2019
- [2] ^{※8}**Ikeda T**, Kuninaga N, Suzuki T, Ikushima S, Suzuki M.
“Tourist-wild boar (*Sus scrofa*) interactions in urban wildlife management”
Global Ecology and Conservation, Vol.18, pp.e00617, 2019/04
- [3] **Ikeda T**, Takahashi H, Igota H, Matsuura Y, Azumaya M, Yoshida T, Kaji K.
“Effects of culling intensity on diel and seasonal activity patterns of sika deer (*Cervus nippon*)”
Scientific Reports, Vol.9, pp.17205, 2019/11

※7 Also recorded on Course of Agricultural and Environmental Science
 ※8 Also recorded on Course of Department of Veterinary Medicine

2) Book

【Course of Agricultural and Environmental Science】

- [1] Hieno A, Naznin HA, **Yamamoto YY**.
“H₂O₂-mediated biotic- and abiotic-stress responses in plants”
Springer, pp.19-42, 2019/05
- [2] **Kato S.**
“Assessing Negative and Positive Phototropism in Lianas - Phototropism-”
Humana Press, pp.19-26, 2019/02
- [3] Panda SK, **Yamamoto YY**.
“Redox homeostasis in plants”
Springer, pp.19-42, 2019/05

II Lectures, Conference Presentation, etc.

1) Conference Presentation

【Course of Applied Life Science】

- [1] Ahmed F Pantho, Syeda H Afrose, David CC Sprague, Thomas J Kuehl, Lorena Amaral, Tarik Ibrahim, Babbette LaMarca, **Tsutumu Nakagawa**, David C Zawieja, Mohammad N Uddin.
“Plasma and placental (pro)renin and soluble (pro)renin receptor are upregulated in preeclamptic pregnancy”
Hypertension 2019 Scientific Sessions(New Orleans, Louisiana), 2019/09/05
- [2] Akther J, Nabi AHMN, **Ebihara A.**
“Heavy metals as environmental risk factors for cardiovascular diseases: from the perspective of the renin angiotensin aldosterone system and oxidative stress”
Reviews in Agricultural Science, Vol.7, pp.68-83, 2019
- [3] Alfarafisa NM, **Kitaguchi K, Yabe T.**
“The effect of Japanese persimmon (*Disopyros kaki*) extract on the prevention of sarcopenia”
ISNFF2019 The 12th International Conference and Exhibition on Nutraceuticals and Functional Foods(Kobe), 2019/12/01-05
- [4] Ciptaningtyas D, Kagoshima W, Umehara H, Johkan M, Nakamura N, Orikasa T, **Thammawong M**, Shiina T.
“Modeling of Change in Color of Mature Green Tomato during Ripening at Different Storage Temperatures based on Cumulative Ethylene Production.”
VI International Symposium on Applications of Modelling as an Innovative Technology in the Horticultural Supply Chain - Model-IT 2019(Italy), 2019/06/09-12
- [5] **Ebihara A.**
“Development of novel assay systems for non-communicable diseases prevention ((Technical Session 9A: Medical and Nanobiotechnology)”
4th International Conference of Biotechnology on Health and Agriculture as a joint conference with Innovation in Plant and Food Sciences, IPFS-ICBHA 2019-GNOBB Conference(Dhaka, Bangladesh), 2019/11/13
- [6] Fukuoka A, **Yamauchi K, Mitsunaga T.**
“Stress reduction effect of wood essential oil flavours on Chronic Unpredictable Mild Stress (CUMS) mice.”
The 2nd International Conference of Essential oil 2019(Aceh, Indonesia), 2019/10/29
- [7] Gotoh S, Ito K, Hono M, **Kitaguchi K, Yabe T.**
“The effect of pectin from persimmon on small intestinal villus morphology change and nutrient absorption”
ISNFF2019 The 12th International Conference and Exhibition on Nutraceuticals and Functional Foods(Kobe), 2019/12/01-05
- [8] Hasegawa K, Iwasa Y, Kawaguchi T, **Katsuno N, Nishizу T.**
“Effect of physical hardening and internal shrinkage of cookies during cooling on its cracking”
ICEF13 International Congress on Engineering and Food(Melbourne, Australia), 2019/09/23-26
- [9] Horibe M, **Katsuno N, Nishizу T.**
“Effects of the Degree Maturity and the Drying Process on the Composition of the Aroma Components in Japanese Pepper (*Zanthoxylum piperitum* DC.)”
ICEF13 International Congress on Engineering and Food(Melbourne, Australia), 2019/09/23-26
- [10] Iida R, Kitazawa T, Umehara H, **Thammawong M, Nakano K**, Naznin HA, Orikasa T, Ciptaningtyas D, Shiina T.
“Effect of MAP on the Accumulation of Stachyose in the Edamame and Its Modeling.”
Horticultural Supply Chain - Model-IT 2019(Italy), 2019/06/09-12

- [11] **Imaizumi T, Ando H, Iwamoto S.**
 “Electrical impedance analysis for evaluating tissue conditions of processed vegetables”
 International Symposium on A New Era in Food Science and Technology 2019(Gifu, Japan), 2019/10/09-10
- [12] **Jia X, Katsuno N, Nishizu T.**
 “Effects of moisture content on changes in physical properties during freezing of dried persimmon: the case of Dojo-Hachiya-Gaki”
 International Mini-Symposium on Food Hydrocolloids(Tokyo, Japan), 2019/05/23-24
- [13] **Jia X, Katsuno N, Nishizu T.**
 “Effect of treatments (kneading and brushing) on the properties of dried persimmons”
 Asian Pacific Confederation of Chemical Engineering (APCChE) congress(Sapporo), 2019/09/23-27
- [14] **Kento Hyodo, Yuto Harada, Tomoyuki Nakagawa, Teppei Imaizumi, Methavee Peanparkdee, Satoshi Iwamoto.**
 “Morphology analysis of wild-type *saccharomyces cerevisiae* by using flow particle image analyzer”
 the 12th European Congress of Chemical Engineering and 5th European Congress of Applied Biotechnology(Florence, Italy), 2019/09/15-19
- [15] **Kitaguchi K, Ishisono K, Mano T, Yabe T.**
 “Dietary fiber pectin mitigates experimental colitis in a side chain-dependent manner”
 ISNFF2019 The 12th International Conference and Exhibition on Nutraceuticals and Functional Foods(Kobe), 2019/12/01-05
- [16] **Kuroda K, Oshima T, Imaizumi T.**
 “Evaluation of quality and structural properties of bread containing edible cricket”
 2019 International Joint Conference on JSAM, SASJ, and 13th CIGR VI Technical Symposium joining FWFNWG and FSWG Workshops(Sapporo, Japan), 2019/09/03-06
- [17] **Maihemuti Mijiti, Wang Jilite, Huang Bingyu, Satoshi Nagaoka.**
 “A novel peptide derived from rice α -globulin decreased cholesterol micellar solubility in vitro and inhibited cholesterol absorption in rats.”
 13th Asian Congress of Nutrition 2019(Indonesia), 2019/08/04
- [18] **Nakagawa T, Okumura M, Yoshimura A, Sawai Y, Masaki K, Futagami T, Mitsui R, Tamaki H, Shimada M, Suzuki T, Sugiyama M, Hayakawa T.**
 “Identification and Sake-Brewing Characteristics of Yeast Strains Isolated from Natural Environments in Gifu, Japan”
 The 35th International Specialised Symposium on Yeasts "Yeast Cornucopia: Yeast for health and wellbeing"(Antalya, Turkey), 2019/10/21
- [19] **Nishizu T, Ueda Y, Inukai K, Katsuno N, Isoe A, Hatanaka K.**
 “Foam performance measurement for beer based on the Helmholtz resonance phenomenon”
 ICEF13 International Congress on Engineering and Food(Melbourne, Australia), 2019/09/23-26
- [20] **Ogino H, Ando H, Iwamoto S, Imaizumi T.**
 “Effects of heating under pasteurization conditions on mechanical and electrical properties of mung bean sprout”
 2019 International Joint Conference on JSAM, SASJ, and 13th CIGR VI Technical Symposium joining FWFNWG and FSWG Workshops(Sapporo, Japan), 2019/09/03-06
- [21] **Oshima T, Kato K, Iwamoto S, Imaizumi S.**
 “Effects of blanching pretreatment on drying characteristics and pectic states of dried ‘Fuyu’ persimmon”
 2019 International Joint Conference on JSAM, SASJ, and 13th CIGR VI Technical Symposium joining FWFNWG and FSWG Workshops(Sapporo, Japan), 2019/09/03-06

- [22] Putri Wulandari Zainal, Daimon Syukri, **Teppei Imaizumi**, Masayasu Nagata, **Kohei Nakano**.
“Lipidomic profiling of cabbage stored at low temperature by liquid chromatography-tandem mass spectroscopy.”
International Symposium on A New Era in Food Science and Technology 2019(Gifu, Japan), 2019/10/09-10
- [23] Shiina T, Morita M, Umebara H, Ciptaningtyas D, **Thammawong M**, Orikasa T, Nagata M.
“Effects of the Light Type, Duration of Irradiation, Storage and Temperature on the Postharvest Chlorophyll Development of the Inner Leaves of Cabbage and Its Modeling.”
VI International Symposium on Applications of Modelling as an Innovative Technology in the Horticultural Supply Chain - Model-IT 2019(Italy), 2019/06/09-12
- [24] Sugama C, **Yamauchi K**, **Mitsunaga T**.
“Anti-stress activity of the essential oil flavor from Alpinia zerumbet var. Excelsa.”
The 2nd International Conference of Essential oil 2019(Aceh, Indonesia), 2019/10/29
- [25] **Yabe T**, Hosoda-Yabe R, Ito K.
“Evaluation of the effect of salmon nasal cartilage-derived proteoglycan on intestinal epithelial cells by mouse enteroid”
Proteoglycans 2019: 11th International Conference on Proteoglycans(Kanazawa, Japan), 2019/09/30

【Course of Agricultural and Environmental Science】

- [1] Arlinghaus R, **Matsumura S**.
“Navigation conservation and social objectives through adaptive harvest management in spatial freshwater recreational fisheries.”
European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC)(Dresden, Germany), 2019/09/08-11
- [2] Bao W, Nagasaki T, Inagaki S, Tatebayashi S, **Shimizu M**, Kageyama K, Suga H.
“A single gene transfer of gibberellin biosynthesis gene cluster increases other gene expression in Fusarium fujikuroi F-group”
2019 Annual Meeting of the Phytopathological Society of Japan(Tsukuba, Japan), 2019/03/18
- [3] De Castro RO, Ohkura S, **Yamamoto A**, Morita Y, Padua AP, Sulabo RC.
“Standardized total tract digestibility of phosphorus and calcium in coconut co-products fed to growing pigs.”
ILRI - Regional symposium on research into smallholder pig production, health, and pork safety(Hanoi, Vietnam), 2019/03/27-29
- [4] Funasaka N, Watanabe Y, Inamori D, Kirihata T, Hashizume R, **Kusuda S**, Yoshioka M.
“Plasma and fecal sex steroid analysis for monitoring reproductive function in captive Risso's dolphins.”
WMMC '19 (World Marine Mammal Science Conference)(Barcelona, Catalonia, Spain), 2019/12/09
- [5] Hoshino S, Hirayama K, Seino S, Matsuda I, **Yayota M**.
“Seasonal Variation in in vivo Digestibility of a Captive Proboscis Monkey (*Nasalis larvatus*)”
The 14th International Conference on Environmental Enrichment(Kyoto), 2019/06/22-26
- [6] Kashima Y, Tsuchiya Y, **Yayota M**, Aramaki Y, Kado R, Ito H.
“Feeding enrichment using an automatic feeder for captive Asian elephants (*Elephas maximus*)”
The 14th International Conference on Environmental Enrichment(Kyoto), 2019/06/22-26
- [7] Le Anh Tuan, **Ken Hiramatsu**.
“A sensitivity analysis of Piano Key Weir discharge capacity based on 3D numerical modeling”
27 th Annual Congress in Matsue Japan Rainwater Catchment Systems Association(Matsue, Japan), 2019/11/09
- [8] Marian M, **Koyama H**, Suga H, Kageyama K, **Shimizu M**.
“Role of nutrient competition in biocontrol of tomato bacterial wilt by *Mitsuaria* sp. TWR114 and *Ralstonia* sp. TCR112”
2019 Annual Meeting of the Phytopathological Society of Japan(Tsukuba, Japan), 2019/03/18
- [9] Muhamad Khoiru Zaki, **Keigo Noda**, **Kengo Ito**, Komariah.
“Revaluation of local knowledge as a sustainable drought strategy”
3rd World Irrigation Forum(Bali, Indonesia), 2019/09/01-07

- [10] **Ninomiya S**, Kojima N, Higashi K, Fujimura M, Yamanashi Y, Kawamura A, Fukuizumi H.
“Environmental enrichment for self-grooming in farm and zoo animals”
The 14th International Conference on Environmental Enrichment(Kyoto), 2019/06/23
- [11] **Otsuka T**, Mitsuishi H, Onishi H, **Yayota M**.
“Evaluation of circadian clock using follicle cells in Japanese black cattle”
The 26th Annual Meeting of the Japanese Society for Chronobiology(Kanazawa, Japan), 2019/10/12-13
- [12] Shigeo Kobayashi, Yasuyuki Kosaka, **Isao Hirota**, Thatheva Saphangthong, Singkone Xayalath.
“Study on the Rehabilitation of Degraded Urban Land for Botanical Garden in Nam Xuang, Vientiane, Lao PDR”
JASTE29(Sapporo, Japan), 2019/06/16
- [13] **Tanaka TST**, Kono Y, **Matsui T**.
“Assessing the spatial variability of winter wheat yield in large-scale paddy fields of Japan using structural equation modelling”
12th European Conference on Precision Agriculture(Montpellier, France), 2019/07/07-11

【Joint Department of Veterinary Medicine】

- [1] DucHieu Duong, Cornelia Appiah-Kwarteng, Takashima Y, MyoAye Khin, Nagayasu E, Yoshida A.
“A novel Luciferase-linked Antibody Capture Assay (LACA) for the diagnosis of Toxoplasma gondii infection in chickens”
The 162nd meeting of the Japanese Society of Veterinary Science(Tsukuba, Japan), 2019/09/10
- [2] ^{※14}Goto S, Iwasaki R, **Mori T**.
“Evaluation of a patient-specific bolus for radiation therapy created using a three-dimensional printer.”
FASAVA-TOKYO 2019(Tokyo, Japan), 2019/09/25-29
- [3] Hashimoto T, Nagano H, **Unno T**, Iino S.
“Localization analysis of the muscarinic receptor tyepe2 in the adult rat brain”
Neuro 2019(Niigata, Japan), 2019/03/14-16
- [4] Horii K, Ehara Y, Naitou K, Nakamori H, **Shiina T**, **Shimizu Y**.
“The mechanism of sexually dimorphic responses of colorectal motility by noxious stimulation in rats”
9th FAOPS (Federation of the Asian & Oceanian Physiological Societies) Congress(Kobe, Japan), 2019/03/28-31
- [5] Horii Y, Shimaoka H, **Shiina T**, **Shimizu Y**.
“Alternative splicing of cold-inducible RNA-binding protein mRNA in hypothermic animals”
9th FAOPS (Federation of the Asian & Oceanian Physiological Societies) Congress(Kobe, Japan), 2019/03/28-31
- [6] ^{※15}Hyodo F, Koyasu K, Yamaguchi T, Iwasaki R, Tanaka H, Shoda S, Takasu M, **Mori T**, Matsuo M.
“Free radical imaging for visualization of radiation treatment using dynamic nuclear polarization (DNP) MRI.”
American Society for Radiation Oncology (ASTRO) 61st Annual Meeting(Chicago, USA), 2019/09/15-18
- [7] Inaba N, Nagano H, Alom F, **Matsuyama H**, Tanahashi Y, **Unno T**.
“Functional roles of M2 subtype of muscarinic receptors in the regulation of motor activity in mouse colon”
The 92nd Annual Meeting of the Japanese Pharmacological Society(Osaka, Japan), 2019/03/14-16
- [8] Md. Matiur Rahman, Kaori Shimizu, Marika Yamauchi, **Ayaka Okada**, **Yasuo Inoshima**.
“Comparative study of extracellular vesicle isolation procedures from raw bovine milk”
The 10th Joint Symposium of Veterinary Research among Universities of Veterinary Medicine in East Asia(Gifu, Japan), 2019/02/18
- [9] Md. Matiur Rahman, Kaori Shimizu, Marika Yamauchi, **Ayaka Okada**, **Yasuo Inoshima**.
“Evaluation of the effects of acidification on isolation of extracellular vesicles from bovine milk”
Annual Meeting of International Society for Extracellular Vesicles 2019(Kyoto, Japan), 2019/04/26

- [10] Md. Matiur Rahman, Kaori Shimizu, Marika Yamauchi, **Ayaka Okada, Yasuo Inoshima**.
“Comparison of acidification and ultracentrifugation as procedures for extracellular vesicle solation from bovine milk”
The 7th SaSSOH, 2019(Sapporo, japan), 2019/09/19
- [11] **Murakami M, Mori T.**
“Treatment with a column adsorbing immunosuppressive cells in spontaneous canine melanoma as a model for human melanoma”
The 78th Annual Meeting of the Japanese Cancer Association(Kyoto, Japan), 2019/09/26
- [12] Narayanan K, **Nakagawa K**, Makino S.
“N6-methyladenosine modification of Middle East Respiratory Syndrome coronavirus mRNAs and regulation of viral gene expression”
38th Annual Meeting American society for virology(US, Minnesota), 2019/07/21
- [13] **Nishii N, Matsuoka T, Kobatake Y, Takashima S.**
“Analysis of gene expression in dogs with glucocorticoid-induced muscle atrophy.”
AMAMs (Asia Meeting of Animal Medicine Specialities) 2019(Shanghai), 2019/10/23-25
- [14] **Saito S, Sarkar S, Onouchi S, Atoji Y.**
“Expression patterns of vesicular glutamate transporters and nicotinic acetylcholine receptor subunit alpha 9 mRNAs in the chick inner ear.”
The 124th Annual Meeting of The Japanese Association of Anatomists(Niigata, Japan), 2019/03/27-29
- [15] Shimaoka H, Yoshida Y, Kurata M, Horii Y, **Sakai H, Shiina T, Shimizu Y.**
“Innate and acquired cold tolerant properties in hibernating Syrian hamsters (*Mesocricetus auratus*)”
9th FAOPS (Federation of the Asian & Oceanian Physiological Societies) Congress(Kobe, Japan), 2019/03/28-31
- [16] **Shiina T, Horii K, Naganuma S, Yasuda S, Shimizu Y.**
“Regulation of gastric motility by histamine via interstitial cells of Cajal in the Syrian hamster”
9th FAOPS (Federation of the Asian & Oceanian Physiological Societies) Congress(Kobe, Japan), 2019/03/28-31
- [17] **Shimizu Y, Horii Y, Shimaoka H, Shiina T.**
“Cold-inducible RNA-binding protein may participate in cold tolerance in hibernating hamsters”
9th FAOPS (Federation of the Asian & Oceanian Physiological Societies) Congress(Kobe, Japan), 2019/03/28-31
- [18] Sonjoy Sarkar, **Sawa Onouchi**, Takeshi Homma, **Shouichiro Saito**.
“The expression of GPR37 and GPR37L1 in the chicken inner ear”
The 162nd meeting of the Japanese Society of Veterinary Science(Tsukuba, Japan), 2019/09/10-12
- [19] ※¹⁶Tanaka H, Kawaguchi M, Takano H, Shoda S, Miyoshi T, Iwasaki R, Hyodo F, Tomita H, **Mori T**, Hara A, Matsuo M.
“Activation of the Wnt/β-catenin signaling pathway causes radioresistance in colon cancer.”
American Society for Radiation Oncology (ASTRO) 61st Annual Meeting(Chicago, USA), 2019/09/15-18
- [20] Tercero B, Terasaki K, Nakagawa K, Narayanan K, Makino S.
“Strand-Specific Real-Time Quantitative RT-PCR Assay for Distinguishing the Viral RNAs during Rift Valley Fever Phlebovirus Infection”
38th Annual Meeting American society for virology(US, Minnesota), 2019/07/21

※14 Also recorded on Animal Medical Center

※15 Also recorded on Animal Medical Center

※16 Also recorded on Animal Medical Center

【Animal Medical Center】

- [1] ^{*14}Goto S, **Iwasaki R**, Mori T.
“Evaluation of a patient-specific bolus for radiation therapy created using a three-dimensional printer.”
FASAVA-TOKYO 2019(Tokyo, Japan), 2019/09/25-29
- [2] ^{*15}Hyodo F, Koyasu K, Yamaguchi T, **Iwasaki R**, Tanaka H, Shoda S, Takasu M, Mori T, Matsuo M.
“Free radical imaging for visualization of radiation treatment using dynamic nuclear polarization (DNP) MRI.”
American Society for Radiation Oncology (ASTRO) 61st Annual Meeting(Chicago, USA), 2019/09/15-18
- [3] ^{*16}Tanaka H, Kawaguchi M, Takano H, Shoda S, Miyoshi T, **Iwasaki R**, Hyodo F, Tomita H, Mori T, Hara A, Matsuo M.
“Activation of the Wnt/β-catenin signaling pathway causes radioresistance in colon cancer.”
American Society for Radiation Oncology (ASTRO) 61st Annual Meeting(Chicago, USA), 2019/09/15-18

^{*14} Also recorded on Joint Department of Veterinary Medicine

^{*15} Also recorded on Joint Department of Veterinary Medicine

^{*16} Also recorded on Joint Department of Veterinary Medicine

2) Academic lecture

【Course of Applied Life Science】

- [1] **Ebihara A.**
“Utilization of Enzymatic Catalysis for Polymer Science”
Fifth International Symposium on Advances in Sustainable Polymers (ASP-19)(Kyoto), 2019/10/17
(Invitation lecture)
- [2] **Ebihara A.**
“Development of novel assay systems for non-communicable diseases prevention (Technical Session 9A: Medical and Nanobiotechnology”
4th International Conference of Biotechnology on Heath and Agriculture as a joint conference with Innovation in Plant and Food Sciences, IPFS-ICBHA 2019-GNOBB Conference(Bangladesh), 2019/11/13 12th International Conference and Exhibition on Nutraceuticals and Functional Foods (ISNFF2019)(Kobe), 2019/12/03 (Invitation lecture)
- [3] **Nagaoka S.**
“Identification of a novel cholesterol-lowering dipeptide (FP), and its down-regulation of intestinal ABCA1 in hypercholesterolemic rats.”
(Invitation lecture)
- [4] **Nakagawa T.**
“Isolation and molecular breeding of the budding yeast for developing new brand of Japanese sake.”
Gifu Joint Degree Symposium(Gifu), 2019/10/08 (Invitation lecture)
- [5] **Nakano K.**
“Freshness Assessment and Prediction Technology for Fruit and Vegetable to Establish Smart Food Chain System”
Int. Conf. of Sustainable Agriculture & Biosystems(Indonesia), 2019/11/12 (Invitation lecture)

【Course of Agricultural and Environmental Science】

- [1] **Tanaka T.**
“Agricultural innovation facing climate change”
INTERNATIONAL CONFERENCE ON CLIMATE CHANGE (Indonesia), 2019/11/18 (Invitation lecture)



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