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PUBLICATIONS BY THE STAFF OF THE GRADUATE
SCHOOL OF VETERINARY MEDICINE

Laboratory of Anatomy
Original articles

- 1) Namiki, Y., Endoh, D. and Kon, Y. 2003. Genetic mutation associated with meiotic metaphase-specific apoptosis in MRL/MpJ mice. *Mol. Reprod. Dev.*, 64:179-188.
- 2) Okamura, T., Miyoshi, I., Takahashi, K., Mototani, Y., Ishigaki, S., Kon, Y. and Kasai, N. 2003. Bilateral congenital cataracts results from again-of-function mutation in the gene for aquaporin - 0 in mice. *Genomics*, 81, 4, 361-368.
- 3) Taharaguchi, S., Kon, Y., Yoshino, S. and Ono, E. 2003. Impaired development of the cerebellum in transgenic mice expressing the immediate-early protein IE 180 of pseudorabies virus. *Virology*, 307 : 243-254.
- 4) Kariwa, H., Tanabe, H., Mizutani, T., Kon, Y., Lokugamage, K., Lokugamage, N., Iwasa, M. A., Hagiya, T., Araki, K., Yoshimatsu, K., Arikawa, J. and Takashima, I. 2003. Synthesis of Seoul virus RNA and structural proteins in cultured cells. *Arch. Virol.*, 148 : 1671-1685.
- 5) Konno, A., Takada, K., Saegusa, J., and Takiguchi, M. 2003. Presence of B7-2⁺ dendritic cells and expression of Th 1 cytokines in the early development of sialoadenitis in the IQI/Jic mouse model of primary Sjogren's syndrome. *Autoimmunity*, 36 : 247-254.

Publications other than original articles

- 1) Hashimoto, Y. 2003. *Lymphatic organ, Avian lymphatic organ, Textbook of Veterinary Histology*, Second ed., pp. 107-114, 118-119, 264-265, Japanese Association of Veterinary Anatomists ed., Gakusosha Co. Ltd., Tokyo (in Japanese).
- 2) Hashimoto, Y. 2003. *Respiratory System, Dog Anatomy A Coloring Atlas*, Plate 67-68, Japanese Association of Veterinary Anatomists ed. Gakusosha Co. Ltd., Tokyo. (in Japanese)
- 3) Matsumoto, R. and Hashimoto, Y. 2003. Distribution and developmental changes of lymphoid tissues in the chicken proventriculus. *Polish J. Vet. Sci.*, Supplement, 3 : 29.

Laboratory of Physiology
Original articles

- 1) Cui, Z J., Zhou, Y. D., Satoh, Y. and Habara, Y. 2003. A physiological role for protoporphyrin IX photodynamic action in the rat Harderian gland. *Acta Physiol. Scand.*, 179 : 149-154
- 2) Ishikawa, T., Jiang, C., Stutts, M. J., Marunaka, Y. and Rotin, D. 2003. Regulation of the epithelial Na⁺ channel by cytosolic ATP. *J. Biol. Chem.*, 278 : 38276-38286
- 3) Hayashi, M., Komazaki, S. and Ishikawa, T. 2003. An inwardly rectifying K⁺ current in bovine parotid acinar cells : possible involvement of Kir 2.1. *J. Physiol.*, 547. 1 : 255-269
- 4) Takahata, T., Hayashi, M. and Ishikawa,

- T. 2003. SK4/IK1-like channels mediate TEA-insensitive, Ca^{2+} -activated K^+ currents in bovine parotid acinar cells. *Am. J. Physiol. Cell. Physiol.*, 284 : C127-C144
- 5) Komagiri, Y., Kitamura, N. 2003. Effect of intracellular dialysis of ATP on the hyperpolarization-activated cation current in rat dorsal root ganglion neurons. *J. Neurophysiol.*, 90 : 2115-2122.

Publications other than original articles

- 1) Habara, Y. *Animal Physiology*. Kanno, T. and Taya, K. eds. 2003. Asakura Shoten
- 2) Takahashi-Iwanaga, H. and Habara, Y. 2003. Extracellularly-applied ATP evokes multifocal calcium oscillations in Schwann sheaths enveloping lanceolate sensory endings. Society for ATP-adenosine
- 3) Otsuguro, K., Gautam, S. H., Ito, S., Habara, Y. and Saito, T. 2003. Intracellular Ca^{2+} signaling via cAMP in rat olfactory neuronal cells. 17th Hokkaido meeting for drug action
- 4) Otsuguro, K., Gautam, S. H., Ito, S., Habara, Y. and Saito, T. 2003. Intracellular Ca^{2+} signaling by forskolin in rat olfactory neuronal cells. 138th Meeting for Society for Veterinary Medical Sciences
- 5) Gautam, S. H., Otsuguro, K., Ito, S., Saito, T. and Habara, Y. 2003. Spatiotemporal dynamics of Ca^{2+} in rat olfactory receptor neurons. 138th Meeting for Society for Veterinary Medical Sciences

Laboratory of Biochemistry Original articles

- 1) Kitamura, H., Matsushita, Y., Iwanaga, T., Mori, K., Kanehira, K., Fujikura, D., Morimatsu, M., Saito, M. 2003. Bacterial lipopolysaccharide-induced expression of the I κ B protein MAIL in B-lymphocytes and macrophages. *Arch. Histol. Cytol.*, 66 : 53-62.
- 2) Makondo, K., Kimura, K., Kitamura, T., Yamaji, D., Saito, M. 2003. Hepatocyte growth factor transduces different intracellular signals in aortic and umbilical venous endothelial cells. *Jpn. J. Vet. Res.*, 51 : 105-112.
- 3) Makondo, K., Kimura, K., Kitamura, N., Kitamura, T., Yamaji, D., Jung B. D., Saito, M. 2003. Hepatocyte growth factor activates endothelial nitric oxide synthase by Ca^{2+} - and phosphoinositide 3-kinase/Akt-dependent phosphorylation in aortic endothelial cells. *Biochem. J.*, 374 : 63-69.
- 4) Shibata, H., Sasaki, N., Honjoh, T., Ohishi, I., Takiguchi, M., Ishioka, K., Ahmed, M., Soliman, M., Kimura, K., Saito, M. 2003. Feline Leptin : Immunogenic and biological activities of the recombinant protein, and its measurement by ELISA. *J. Vet. Med. Sci.*, 65 : 207-211.
- 5) Kitamura, T., Kimura, K., Makondo, K., Furuya, D. T., Suzuki, M., Yoshida, T., Saito, M. 2003. Proinsulin C-peptide increases nitric oxide production by enhancing mitogen-activated protein kinase-dependent transcription of endothelial nitric oxide synthase in aortic endothelial cells of Wistar rats. *Diabetologia*, 46 : 1698-1705.

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- 1) Kimura, K., Ishioka, K., Sasaki, N., Shibata, H., Honjoh, T., Ohishi, I., Saito, M. 2003. Canine and feline leptin : a biomarker for quantitative assessment of obesity. *J. Vet. Med.*, 56 : 43-46. (in Japanese)
- 2) Saito, M. 2003. Mechanism of energy expenditure regulation in brown adipose tissue and obesity. *J. Jpn. Soc. Nutr. Food. Sci.*, 56 : 33-39. (in Japanese)
- 3) Ohashi, A. and Saito, M. 2003. Uncoupling protein and energy metabolism. *Nippon Rinsyo*, 61 : 271-276. (in Japanese)
- 4) Ohashi, A., Saito, M. 2003. Conjugated linoleic acid induces body fat loss, insulin resistance and fatty liver. *Himan Kenkyu*, 9 : 128-135. (in Japanese)
- 5) Kimura, K., Kitamura, T., Saito, M. 2003. Proinsulin C-peptide : cellular signaling and action. *Vet. Biochem.*, 40 : 9-16. (in Japanese)
- 6) Saito, M. 2003. Crosstalk between brain and nutrition. *Nutrition, Brain and Behavior*. pp 1-22. Saito, M., Torii, K. and Aoyama, Y. eds., *Kenpakusya, Tokyo*. (in Japanese)
- 7) Saito, M. 2003. Regulation of energy expenditure and nutrition. *Nutrition, Brain and Behavior*. pp 157-182. Saito, M., Torii, K. and Aoyama, Y. eds., *Kenpakusya, Tokyo*. (in Japanese)
- 8) Saito, M. 2003. Roles of UCP in the regulation of energy expenditure. *124 th Nihon Igakukai Symposium*, 62-70. (in Japanese)

Laboratory of Pharmacology Original articles

- 1) Yonekubo, K., Ohta, T. and Ito, S. 2003. Two distinct inhibitory actions of steroids on cholinceptor-mediated secretion of catecholamine from guinea-pig adrenal medullary cells. *Neurosci Lett.*, 337 : 89-92.
- 2) Suzuki, Y., Kondo, K., Matsumoto, Y., Zhao, B. -Q., Otsuguro, K., Maeda, T., Tsukamoto, Y., Urano, T. and Umemura, K. 2003. Dietary supplementation of fermented soybean, natto suppresses intimal thickening and modulates the lysis of mural thrombi after endothelial injury rat femoral artery. *Life Sci*, 73 : 1289-1298
- 3) Niwa, K., Inanami, O., Yamamori, T., Ohta, T., Hamasu, T., and Kuwabara, M. 2003. Redox regulation of PI 3 K/Akt and p53 in bovine aortic endothelial cells exposed to hydrogen peroxide. *Antioxidants & Redox Signaling*, 5 : 713-722

Publications other than original articles

- 1) Ito, S. 2003. Practical experiments on experimental animals in the biomedical science of veterinary medicine. *J. Jpn. Vet. Med. Assoc.*, 56, 176-179 (in Japanese)

Laboratory of Microbiology Original articles

- 1) Nagai, M., Sakoda, Y., Mori, M., Hayashi, M., Kida, H. and Akashi, H. 2003. Insertion of cellular sequence and RNA recombination in the structural protein coding

- region of cytopathogenic bovine viral diarrhoea virus. *J. Gen. Virol.*, 84 : 447-452.
- 2) Makarova, N. V., Ozaki, H., Kida, H., Webster, R. G. and Perez, D. R. 2003. Replication and transmission of influenza viruses in Japanese quail. *Virology.*, 310 : 8-15.
 - 3) Takada, A., Matsushita, S., Ninomiya, A., Kawaoka, Y. and Kida, H. 2003. Intranasal immunization with formalin-inactivated virus vaccine induces a broad spectrum of heterosubtypic immunity against influenza A virus infection in mice. *Vaccine*, 21 : 3212-3208.
 - 4) Tanaka, H., Park, C. H., Ninomiya, A., Ozaki, H., Takada, A., Umemura, T. and Kida, H. 2003. Neurotropism of the 1997 Hong Kong H 5 N 1 influenza virus in mice. *Vet. Microbiol.*, 95 : 1-13.
 - 5) Liu, J., Okazaki, K., Ozaki, H., Sakoda, Y., Wu, Q., Chen, F. and Kida H. 2003. H 9 N 2 influenza viruses prevalent in poultry in China are phylogenetically distinct from A/quail/Hong Kong/G 1 /97 presumed to be the donor of the internal protein genes of the H 5 N 1 Hong Kong/97 virus. *Avian Pathol.*, 32 : 551-560.
 - 6) Liu, J. H., Okazaki, K., Shi, W. M., Wu, Q. M., Mweene, A. S. and Kida, H. 2003. Phylogenetic analysis of neuraminidase gene of H 9 N 2 influenza viruses prevalent in chickens in China during 1995-2002. *Virus Genes*, 27 : 197-202.
 - 7) Sunden, Y., Park, C. H., Matsuda, K., Anagawa, A., Kimura, T., Ochiai, K., Kida, H. and Umemura, T. 2003. The effects of antipyretics on influenza virus encephalitis in mice and chicks. *J. Vet. Med. Sci.*, 65 : 1185-1188.
 - 8) Liu, J. H., Okazaki, K., Shi, W. M. and Kida, H. 2003. Phylogenetic analysis of hemagglutinin and neuraminidase genes of H 9 N 2 viruses isolated from migratory ducks. *Virus Genes*, 27 : 291-296.
 - 9) Park, C. H., Matsuda, K., Sunden, Y., Ninomiya, A., Takada, A., Ito, H., Kimura, T., Ochiai, K., Kida, H. and Umemura, T. 2003. Persistence of viral RNA segments in the central nervous system of mice after recovery from acute influenza A virus infection. *Vet Microbiol.*, 97 : 259-268.

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- 1) Okazaki, K. 2003. Paramyxoviruses and infectious diseases. In : *Veterinary Microbiology*, 2nd ed., pp. 234-239, Mikami, T. ed., Buneido Pub. Co. Ltd., Tokyo. (in Japanese)
- 2) Kida, H. 2003. Distribution and circulation of influenza viruses in nature. *Nippon Rinsho*, 61 : 1865-1871. (in Japanese)

Laboratory of Infectious Diseases Original articles

- 1) Zhou, J., Ohashi, K., Yamasaki, M., and Onuma, M. 2003. cDNA cloning of a Rab 5 homologue in *Babesia gibsoni*. *J. Vet. Med. Sci.*, 65 : 519-521.
- 2) Usui, T., Meas, S., Konnai, S., Ohashi, K., and Onuma, M. 2003. Seroprevalence of bovine immunodeficiency virus and bovine leukemia virus in dairy and beef cattle in Hokkaido. *J. Vet. Med. Sci.*, 65 : 287-289.
- 3) Sugino, M., Imamura, S., Mulenga, A., Nakajima, M., Tsuda, A., Ohashi, K., and Onuma, M. 2003. A serine proteinase inhibitor (serpin) from ixodid tick

- Haemaphysalis longicornis*; cloning and preliminary assessment of its suitability as a candidate for a tick vaccine. *Vaccine*, 21 : 2844-2851.
- 4) Nakajima, M., Yanase, H., Iwanaga, T., Kodama, M., Ohashi, K., and Onuma, M. 2003. Passive immunization with monoclonal antibodies : effects on *Haemaphysalis longicornis* tick infestation of BALB/c mice. *Jpn. J. Vet. Res.*, 50 : 157-163.
 - 5) Meas, S., Yilmaz, Z., Usui, T., Torun, S., Yelilbag, K., Ohashi, K., and Onuma, M. 2003. Evidence of bovine immunodeficiency virus in cattle in Turkey. *Jpn. J. Vet. Res.*, 51 : 1-6.
 - 6) Usui, T., Konnai, S., Tajima, S., Watarai, S., Aida, Y., Ohashi, K., and Onuma, M. 2003. Protective effects of vaccination with bovine leukemia virus (BLV) tax DNA against BLV infection in sheep. *J. Vet. Med. Sci.*, 65 : 1201-1205.
 - 7) Tomioka, Y., Ochiai, K., Ohashi, K., Kimura, T., and Umemura, T. 2003. In ovo infection with an avian leukosis virus causing fowl glioma : viral distribution and pathogenesis. *Avian Pathol.*, 32 : 617-624.
 - 8) Mweene, A.S., Fukushi, H., Pandey, G.S., Syakalima, M., Simuunza, M., Malamo, M., Nambota, A., Samui, K.L., Tsubota, T., Nakazato, Y., Onuma, M., and Yasuda, J. 2003. The prevalence of bovine herpesvirus-1 in traditional cattle in Southern Province, Zambia. *Rev. Sci. Tech.*, 22 : 873-877.
 - 9) Baek, B. K., Soo, K.B., Kim, J.H., Hur, J., Lee, B.O., Jung, J.M., Onuma, M., Oluoch, A.O., Kim, C.H., and Kakoma, I. 2003. Verification by polymerase chain reaction of vertical transmission of *Theileria sergenti* in cows. *Can. J. Vet. Res.*, 67 : 278-282.
 - 10) Konnai, S., Nagaoka, Y., Takesima, S., Onuma, M., and Aida, Y. 2003. Technical note : DNA typing for ovine MHC DRB 1 using polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP). *J. Dairy Sci.*, 86 : 3362-3365.
 - 11) Nakajima, M., Kodama, M., Yanase, H., Iwanaga, T., Mulenga, A., Ohashi, K., and Onuma, M. 2003. Production and characterization of monoclonal antibodies against midgut of ixodid tick, *Haemaphysalis longicornis*. *Vet. Parasitol.*, 115 : 355-363.
 - 12) Konnai, S., Nagaoka, Y., Takeshima, S., Onuma, M., and Aida, Y. 2003. Sequences and diversity of 17 new Ovar-DRB 1 alleles from three breeds of sheep. *Eur. J. Immunogenet.*, 30 : 275-282.
 - 13) Konnai, S., Usui, T., Ohashi, K., and Onuma, M. 2003. The rapid quantitative analysis of bovine cytokine genes by real-time RT-PCR. *Vet. Microbiol.*, 94 : 283-294.
 - 14) Okada, K., Sonoda, K., Koyama, M., Yin, S., Ikeda, M., Goryo, M., Chen, S.L., Kabeya, H., Ohishi, K., and Onuma, M. 2003. Delayed-type hypersensitivity in sheep induced by synthetic peptides of bovine leukemia virus encapsulated in mannan-coated liposome. *J. Vet. Med. Sci.*, 65 : 515-518.
 - 15) Konnai, S., Takeshima, S.N., Tajima, S., Yin, S.A., Okada, K., Onuma, M., and Aida, Y. 2003. The influence of ovine MHC class II DRB 1 alleles on immune response in bovine leukemia virus infection. *Microbiol. Immunol.*, 47 : 223-232.
 - 16) Sarataphan, N., Kakuda, T., Chansiri, K., and Onuma, M. 2003. Survey of benign *Theileria* parasites of cattle and buffaloes in Thailand using allele-specific polymerase chain reaction of major piroplasm surface protein gene. *J. Vet. Med. Sci.*, 65 : 133-135.

- 17) Mulenga, A., Tsuda, A., Onuma, M., and Sugimoto, C. 2003. Four serine proteinase inhibitors (serpin) from the brown ear tick, *Rhipicephalus appendiculatus*; cDNA cloning and preliminary characterization. *Insect Biochem. Mol. Biol.*, 33 : 267-276.
- 18) Tajima, S., Takahashi, M., Takeshima, S. N., Konnai, S., Yin, S.A., Watarai, S., Tanaka, Y., Onuma, M., Okada, K., and Aida, Y. 2003. A mutant form of the tax protein of bovine leukemia virus (BLV), with enhanced transactivation activity, increases expression and propagation of BLV in vitro but not in vivo. *J. Virol.*, 77 : 1894-1903.
- 19) Mulenga, A., Onuma, M. and Sugimoto, C. 2003. Three serine proteinases from midguts of the hard tick *Rhipicephalus appendiculatus*: cDNA cloning and preliminary characterization. *Exp. Appl. Acarol.*, 29 : 151-164.

Publications other than original articles.

- 1) Onuma, M. 2003. Basic immunology of animals for veterinarian: VII. Immune responses to viral infections. *Small Animal Clinic*, 130 : 4-12 (in Japanese).
- 2) Onuma, M. 2003. Basic immunology of animals for veterinarian: VIII. Immune responses to protozoa infections. *ibid.* 132 : 4-10 (in Japanese).
- 3) Onuma, M. 2003. Basic immunology of animals for veterinarian: IX. Immune responses to viral infections in cats and dogs. *ibid.* 133 : 4-12 (in Japanese).
- 4) Okada, N., and Onuma, M. 2003. Pathogenicity and invasion mechanisms of pathogenic microorganism, an introduction. *JVM* 56 : 595-596 (in Japanese).
- 5) Onuma, M., 2003. International cooperation on innovation of technology. *J. Vet. Med. Assoc.*, 56 : 695-696 (in Japanese).
- 6) Ohashi, K., 2003. Iridoviridae. In: *Veterinary microbiology*, 2nd ed., Mikami, T., Akashi, H., Sekizaki, T., Takai, S, and Mochizuki, M. eds., pp 201-203. Buneidoussyuppan, Tokyo (in Japanese).

Laboratory of Parasitology Original articles

- Oku Y. and Kamiya M. 2003. Chapter III5. Biology of *Echinococcus*. In: *Progress of Medical Parasitology*, Otsuru M., Kamagai S. and Hayashi S. eds., Meguro Parasitological Museum, Tokyo, pp293-318.
- Ganzorig S., Oku Y., Okamoto M. and Kamiya M. 2003. Species identification of a taeniid cestode from snow leopard, *Uncia uncia* Schreber, 1779 (Felidae) in Mongolia. *Mongolian J. Bio. Sci.*, 1 : 21-23.
- Konno K., Oku Y. and Tamashiro H. 2003. Prevention of alveolar echinococcosis ecosystem and risk management perspective. *Acta Tropica*, 89 : 33-40.
- Doi, R., Matsuda, H., Uchida, A., Kanda, E., Kamiya, H., Konno, K., Tamashiro, H., Nonaka, N., Oku, Y. and Kamiya, M. 2003. Possibility of invasion of *Echinococcus* into Honshu with pet dogs from Hokkaido and overseas. *Jpn. J. Pub. Hlth.*, 50 : 639-649. (In Japanese with English abstract)
- Nonaka N., Oku Y. and Kamiya M. 2003. Control and management of parasitic zoonoses maintained in wildlife: A trial of Hokkaido University against echinococcosis. In: *Technology Innovation and its*

Relations to Humanities and Social Sciences. Nakamura M, Lee KJ eds., Hok-

kaido University Press, Sapporo, pp. 93-101.

Publications other than original articles

Kamiya, M. 2003. Echinococcosis/Hydatidosis. In : *Annual Reports of OIE Reference Laboratories and Collaborating Centres 2002*, OIE, France, pp. 132-135.

Kamiya, M. 2003. Echinococcosis. *Kagaku Ryoho no Ryoiki*, 19 : 64-69. (In Japanese)

Kamiya, M. 2003.2. Echinococcus. *Sogo-Rinsho*, 52 : 995-1000. (In Japanese)

Kamiya, M. 2003. Echinococcosis. *Rinsho to Biseibutsu*, 30 : 401-406. (In Japanese)

Kamiya, M. 2003. Echinococcosis. Countermeasures against animal infections protect human infection. *J. Modern Vet.*

Med., 69 : 12-14. (In Japanese)

Kamiya, M. 2003. Echinococcosis in Japan and its countermeasures. *Kansensho*, 33 : 135-145. (In Japanese)

Kamiya, M. 2003. Echinococcosis. Current status and its countermeasures. *Rinsho* 29 : 1824-1827. (In Japanese)

Kamiya, M. 2003. Echinococcosis. Current status and its countermeasures. *Kansensho to Kagaku-Ryoho*, 7 : 1-4. (In Japanese)

Oku, Y. 2003. Echinococcosis in Hokkaido. *Hara-no-mushi Tsushin*, 182 : 3-12. (In Japanese)

Laboratory of Experimental Animal Sciences

Original articles

1) Asano, A., Jin, H. K., Watanabe, T. 2003. Mouse Mx 2 gene : organization, mRNA expression and the role of the interferon-

response promoter in its regulation. *Gene* 306 : 105-113.

Laboratory of Internal Medicine

Original articles

1) Hossain, M. A., Yamato, O., Yamasaki, M., Otsuka, Y. and Maede, Y. 2003. Relation between reticulocyte count and substrate specificity of erythrocyte 5' -nucleotidase activity in dogs, cats, cattle and humans. *J. Vet. Med. Sci.*, 65 : 193-197.

2) Yamato, O., Masuoka, Y., Yonemura, M., Hatakeyama, A., Kobayashi, A., Satoh, H., Nakayama, M., Asano, T., Shoda, T., Yamasaki, M., Ochiai, K., Umemura, T. and Maede, Y. 2003. Clinical and clinicopathologic characteristics of Shiba dogs with a deficiency of lysosomal acid β -galactosidase : A canine model of human

GM₁ gangliosidosis. *J. Vet. Med. Sci.*, 65 : 213-217.

3) Hossain, M. A., Yamato, O., Yamasaki, M., Joeng, J. R., Chang, H. S. and Maede, Y. 2003. Serum from dogs infected with *Babesia gibsoni* inhibits maturation of reticulocytes and erythrocyte 5' -nucleotidase activity *in vitro*. *J. Vet. Med. Sci.*, 65 : 1281-1286.

4) Yamasaki, M., Hossain, M. A., Jeong, J. R., Chang, H. S., Satoh, H., Yamato, O. and Maede, Y. 2003. *Babesia gibsoni*-specific isoenzymes related to energy metabolism of the parasite in the infected erythro-

- cytes. *J. Parasitol.*, 89 : 1142-1146.
- 5) Yamasaki, M., Yamato, O., Hossain, M. A., Jeong, J. R., Chang, H. S., Satoh, H. and Maede, Y. 2003. *Babesia gibsoni* : preferential multiplication in reticulocytes is related to the presence of mitochondria and a high concentration of adenosine 5' -triphosphate in the cells. *Exp. Parasitol.*, 102 : 164-169.
 - 6) Yamasaki, M., Tajima, M., Lee, K. W., Joeng, J. R., Yamato, O. and Maede, Y. 2003. Molecular cloning and phylogenetic analysis of *Babesia gibsoni* heat shock protein 70. *Vet. Parasitol.*, 110 : 123-129.
 - 7) Hossain, M. A., Yamato, O., Yamasaki, M. and Maede, Y. 2003. Clinical and haematobiochemical studies on experimentally induced chronic babesiosis in splenectomized adult dogs. *Bangl. J. Vet. Med.*, 1 : 53-56. (published in Bangladesh)
 - 8) Yang, Q., Hu, Q., Yamato, O., Lee, K. W., Maede, Y. and Yoshihara, T. 2003. Organosulfur compounds from garlic (*Allium sativum*) oxidizing canine erythrocytes. *Z. Naturforsch.*, 58c : 408-412.
 - 9) Yamato, O., Sugiyama, Y., Matuura, H., Lee, K. W., Goto, K., Maede, Y. and Yoshihara, T. 2003. Isolation and identification of 2-propenyl thiosulfate from garlic (*Allium sativum*) that oxidizes canine erythrocytes. *Biosci. Biotechnol. Biochem.*, 67 : 1594-1596.
 - 10) Lee, W. Y., Lee, S. D., Son, S. I., Chang, H. S., Kim, Y. H., Oh, T. H., Eom, K. D., Chang, K. H., Park, S. C., Yamato, O., Maede, Y. and Lee, K. W. 2003. The effect of *Artemisia capillaris* crude juice extract on CCl₄ induced liver damage in dogs. *J. Vet. Clin.*, 20 : 389-395. (in Korean with English summary)

Publication other than original articles

- 1) Yamato, O. 2003. GM₁ gangliosidosis in Shiba dogs. *Small Anim. Clin.*, 133 : 13-22. (review in Japanese)

Laboratory of Veterinary Surgery Original articles

- 1) Ishiguro, T., Kadosawa, T., Takagi, S., Kim, G., Ohsaki, T., Bosnakovski, D., Okumura, M. and Fujinaga, T. 2003. Relationship of disease progression and plasma histamine concentrations in 11 dogs with mast cell tumors. *J. Vet. Intern. Med.*, 17 : 194-198.
- 2) Kim, G., Okumura, M., Ishiguro, T., Kadosawa, T. and Fujinaga, T. 2003. Preventive effect of hyaluronic acid on the suppression of attachment and migration abilities of bovine chondrocytes by IL-1 *in vitro*. *J. Vet. Med. Sci.*, 65 : 427-430.
- 3) Oku, K., Yamanaka, T., Ashihara, N., Kawasaki, K., Mizuno, Y. and Fujinaga, T. 2003. Clinical observations during induction and recovery of xylazine-midazolam-propofol anesthesia in horses. *J. Vet. Med. Sci.*, 65 : 805-808.
- 4) Watanabe, K., Kikuchi, M., Okumura, M., Kadosawa, T. and Fujinaga, T. 2003. Efficacy of enamel matrix protein applied to spontaneous periodontal disease in two dogs. *J. Vet. Med. Sci.*, 65 : 1007-1010.
- 5) Kim, G., Okumura, M., Bosnakovski, D., Ishiguro, T., Park, C-H., Kadosawa, T. and Fujinaga, T. 2003. Effects of ascorbic acid on proliferation and biological properties

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- 6) Kadosawa, T., Ohashi, F., Nishimura, R., Sasaki, N., Saito, I., Wakabayashi, H. and Takeuchi, A. 2003. Relative biological effectiveness and tolerance dose of Fission neutrons in canine skin for a potential combination of Neutron capture therapy and fast-neutron therapy. *Radiat. Res.*, 160 : 436-442.
- 7) Kim, G., Okumura, M., Bosnakovski, D., Ishiguro, T., Kadosawa, T. and Fujinaga, T. 2003. Biological properties of allogenic chondrocytes on the surface of bovine cartilage explants *in vitro*. *J. Vet. Med. A*, 50 : 418-423.
- 8) Kadosawa, T., Takagi, S., Tazawa, Y., Ishida, O., Isomura, H., Matsuda, K., and Fujinaga, T. 2003. Bilateral rostral maxillectomy for the treatment of oral well-differentiated fibrosarcoma in golden retriever. *Jpn. J. Vet. Anesth. Sur.*, 34 : 63-70. (In Japanese with English summary)
- 9) Kadosawa, T. 2003. Diagnosis and treatment of internasal tumors in dogs. *J. Anim. Clinic. Med.*, 12 : 75-85. (In Japanese)

Publication other than original articles

- 1) Kito, M. 2003. New aspects on etiology and pathogenesis of laminitis in cattle. Muel-ling, C. K. W. and Lischer, C. J., *In Recent developments and perspectives in bovine medicine*. pp 236-247 (2002), *J. Hokkaido Vet. Med. Assoc.*, 47 : 7-13. (The English-Japanese translation.)
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Laboratory of Comparative Pathology

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- 2) Kurata, Y., Katsuta, O., Doi, T., Kawasuso, T., Hiratsuka, H., Tsuchitani, M. and Umemura, T. 2003. Chronic cadmium treatment induces islet B cell injury in ovariectomized cynomolgus monkeys. *Jpn. J. Vet. Res.*, 50 : 175-183.
- 3) Tomioka, Y., Sawada, M., Ochiai, K. and Umemura, T. 2003. *Neospora caninum* Antigens Recognized by Mouse IgG at Different Stages of Infection Including Recrudescence. *J. Vet. Med. Sci.*, 65 : 745-747.
- 4) Kimura, T. and Griffin, D.E. 2003. Extensive immune-mediated hippocampal damage in mice surviving infection with neuroadapted Sindbis virus. *Virology*, 311 : 28-39.
- 5) Kim, H-O., Kimura, T., Ochiai, K., Yazawa, H., Itakura, C. and Umemura, T. 2003.

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- 8) Tomioka, Y., Ochiai, K., Ohashi, K., Kimura, T. and Umemura, T. 2003. In ovo infection with an avian leukosis virus causing fowl glioma : viral distribution and pathogenesis. *Avian Pathol.*, 32 : 617-624.
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- 12) Tanaka, H., Park, C. H., Ninomia, A., Ozaki, H., Takada, A., Umemura, T. and Kida, H. 2003. Neurotropism of the 1997 Hong Kong H 5 N 1 influenza virus in mice. *Vet. Microbiol.*, 95 : 1-13

Laboratory of Theriogenology Original articles

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 - 8) Sasamoto, Y., Sakaguchi, M., Yamada, Y., Katagiri, S. and Takahashi, Y. 2003. The effects of twisting and type of aspiration needle on the efficiency of transvaginal ultrasound-guided ovum pick-up in cattle. *J. Vet. Med. Sci.*, 65 : 1083-1086.
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Laboratory of Public Health
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- 9) Mizutani, T., Kobayashi, M., Eshita, Y., Inanami, O., Yamamori, T., Goto, A., Aki, Y., Miyoshi, H., Miyamoto, H., Kariwa, H., Kuwabara, M. and Takashima, I. 2003. Characterization of JNK-like protein de-

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- 1) Kuwabara, M., 2003. Spin trapping method. In : *Introduction to Electron Spin Science & Spin Technology*, pp69-77, The Society of Electron Spin Science and Technology eds., Business Center for Academic Societies Japan., Tokyo. (in Japanese)

Laboratory of Toxicology Original articles

- 1) Kim, H.S., Saito, K., Ishizuka, M., Kazusaka, A., Fujita, S. 2003. Short period exposure to di- (2-ethylhexyl) phthalate regulates testosterone metabolism in testis of prepubertal rats. *Arch Toxicol.*, 77, 8 : 446-51.
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Laboratory of Prion Diseases Original articles

1) Naya, Y., Horiuchi, M., Ishiguro, N., and Shinagawa, M. 2003. Bacteriological and genetic assessment of game meat from Japanese wild boars. *J. Agric. Food. Chem.*, 51 : 345-349.

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3) Gombojav, A., Shimauchi, I., Horiuchi, M., Ishiguro, N., Shinagawa, M., Kitamoto, T., Ichiro Miyoshi, I., Mohir, S., and Takata, M. 2003. Susceptibility of Transgenic Mice Expressing Chimeric Sheep, Bovine and Human PrP Genes to Sheep Scrapie. *J.*

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