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PUBLICATIONS BY THE STAFF OF THE GRADUATE SCHOOL OF VETERINARY MEDICINE

Laboratory of Anatomy Original articles

- 1) Yamaji, D., Kimura, K., Watanabe, A., Kon, Y., Iwanaga, T., Soliman, M. M., Ahmed, M. M. and Saito, M. 2006. Bovine hepatocyte growth factor and its receptor c-Met cDNA cloning and expression analysis in the mammary gland. *Domestic Animal Endocrinol.*, 30 : 239-246.
- 2) Nio, J., Takahashi-Iwanaga, H., Morimatsu, M., Kon, Y. and Iwanaga, T. 2006. Immunohistochemical and in situ hybridization analysis of galectin-3, a β -galactoside binding lectin, in the urinary system of adult mice. *Histochem. Cell. Biol.*, 126: 45-56.
- 3) Cho, A-R., Uchio-Yamada, K., Torigai, T., Miyamoto, T., Miyoshi, I., Matsuda, J., Kurosawa, T., Kon, Y., Asano, A., Sasaki, N. and Agui, T. 2006. Deficiency of the tensin 2 gene in the ICGN mouse : an animal model for congenital nephrotic syndrome. *Mamm. Genome*, 17 : 407-416.
- 4) Hayashi, M., Fuse, S., Endoh, D., Horiguchi, N., Nakayama, K., Kon, Y. and Okui, T. 2006. Accumulation of copper induces DNA strand Breaks in brain cells of Long-Evans Cinnamon (LEC) rats, an animal model for human Wilson disease. *Exp. Anim.*, 55 : 419-426.

Publication other than original articles

- 1) Hashimoto, Y., Kon, Y., Okumura, M. and Ito, S. 2006. Current teaching veterinary anatomy and surgery with a minimum loss of animal life in EU countries (in Japanese). *J. Clin. Vet. Med.*, 24 : 63-75.

Laboratory of Physiology Original articles

- 1) Gautam, S. H., Otsuguro, K., Ito, S., Saito, T. and Habara, Y. 2006. Intensity of odorant stimulation affects mode of Ca^{2+} dynamics in rat olfactory receptor neurons. *Neurosci. Res.*, 55 : 410-420.
- 2) Kuroda, T., Satoh, Y., Akutsu-Yamaguchi, H., Shikanai, Y., Miyata, S., Saino, T., Russa, D., Habara, Y. and Cui, Z. J. 2006. Quantitative analysis of photodamage during fluorescence bioimaging : monitoring of nitric oxide production using DAF-2. *Bioimages*, 14 : 9-18.

Laboratory of Biochemistry Original articles

- 1) Ishioka, K., Omachi, A., Sagawa, M., Shibata, H., Honjoh, T., Kimura, K. and Saito, M. 2006. Canine adiponectin : cDNA structure, mRNA expression in adipose tissues and reduced plasma levels in obesity. *Res. Vet. Sci.*, 80 : 127-132.

- 2) Nishii, N., Takasu, M., Ohba, Y., Maeda, S., Kitoh, K., Ohtsuka, Y., Honjoh, T., Saito, M. and Kitagawa, H. 2006. Effects of administration of glucocorticoids and feeding status on plasma leptin concentrations in dogs. *Am. J. Vet. Res.*, 67 : 266-270.
- 3) Yamaji, D., Kimura, K., Watanabe, A., Kon, Y., Iwanaga, T., Soliman, M. M., Ahmed, M. M. and Saito, M. 2006. Bovine hepatocyte growth factor and its receptor c-Met : cDNA cloning and expression analysis in the mammary gland. *Domest. Anim. Endocrinol.*, 30 : 239-246.
- 4) Wang, Y., Kimura, K., Inokuma, K., Saito, M., Kontani, Y., Kobayashi, Y., Mori, N. and Yamashita, H. 2006. Potential contribution of vasoconstriction to suppression of heat loss and homeothermic regulation in UCP1-deficient mice. *Pflug. Arch. Eur. J. Physiol.*, 452 : 363-369.
- 5) Inokuma, K., Okamatsu-Ogura, Y., Omachi, A., Matsushita, Y., Kimura, K., Yamashita, H. and Saito, M. 2006. Indispensable role of mitochondrial UCP 1 for antiobesity effect of β 3-adrenergic stimulation. *Am. J. Physiol. Endocrinol. Metab.*, 290 : E1014-E1021.
- 6) Nishii, N., Nodake, H., Takasu, M., Soe, O., Ohba, Y., Maeda, S., Ohtsuka, Y., Honjoh, T., Saito, M. and Kitagawa, H. 2006. Postprandial changes in leptin concentrations of cerebrospinal fluid in dogs during development of obesity. *Am. J. Vet. Res.*, 67 : 2006-2011.
- 7) Jeusette, I., Daminet, S., Nguyen, P., Shibata, H., Saito, M., Honjoh, T., Istasse, L. and Diez, M. 2006. Effect of ovariectomy and ad libitum feeding on body composition, thyroid status, ghrelin and leptin plasma concentrations in female dogs. *J. Anim. Physiol. Anim. Nutr.*, 90 : 12-18.

Publications other than original articles

- 1) Okamatsu, Y. and Saito, M. 2006. The function and differentiation of brown adipose tissue. *Saibou*, 38 : 14-18. (in Japanese)
- 2) Okamatsu, Y. and Saito, M. 2006. Origin and differentiation of brown adipocytes. *The Lipid*, 17 : 157-163. (in Japanese)
- 3) Okamatsu, Y. and Saito, M. 2006. Role of uncoupling protein 1 in the fat-reducing effect of leptin. *Himankenkyu*, 12 : 73-75. (in Japanese)
- 4) Okamatsu, Y., Omachi, A. and Saito, M. 2006. Brown and white adipocytes : the roles in energy metabolism. *Bunshisaibochiryō*, 5 : 28-34. (in Japanese)
- 5) Okamatsu, Y. and Saito, M. 2006. Control of whole body energy metabolism by brown adipose tissue. *Clinical Neuroscience*, 24:914-916. (in Japanese)

Laboratory of Pharmacology Original articles

- 1) Otsuguro, K., Ohta, T. and Ito, S. 2006. Zinc modulates primary afferent fiber-evoked responses of ventral roots in neonatal rat spinal cord in vitro. *Neuroscience*, 138 : 281-291.
- 2) Ohta, T., Ikemi, Y., Murakami, M., Imagawa, T., Otsuguro, K. and Ito, S. 2006. Potentiation of transient receptor potential V1 functions by the activation of metabotropic 5-HT receptors in rat primary sensory neurons. *J. Physiol.*, 576 : 809-822.

- 3) Gautam, S.H., Otsuguro, K., Ito, S., Saito, T. and Habara, Y. 2006. Intensity of odorant stimulation affects mode of Ca²⁺ dynamics in rat olfactory receptor neurons. *Neurosci. Res.*, 55 : 410-420.
- 4) Otsuguro, K., Yamaji, Y., Ban, M., Ohta, T. and Ito, S. 2006. Involvement of adenosine in depression of synaptic transmission during hypercapnia in isolated spinal cord of neonatal rats. *J. Physiol.*, 574 : 835-847.
- 5) Tabo, M., Nakamura, M., Kimura, K. and Ito, S. 2006. QT-RR Relationships and suitable QT correction formulas for halothane-anesthetized dogs. *J. Toxicol. Sci.*, 31 : 381-390.
- 6) Takahashi, E., Inanami, O., Ohta, T., Matsuda, A. and Kuwabara, M. 2006. Lipid raft disruption prevents apoptosis induced by 2-chloro-2'-deoxyadenosine (Cladribine) in leukemia cell lines. *Leuk. Res.*, 30 : 1555-1561.

Publications other than original articles

- 1) Hashimoto, Y., Kon, Y., Okumura, M. and Ito, S. 2006. Current teaching veterinary anatomy and surgery with a minimum loss of animal life in EU countries (in Japanese). *J. Clin. Vet. Med.*, 24 : 63-75.

Laboratory of Microbiology Original articles

- 1) Muramoto, Y., Le, T.Q., Phuong, L.S., Nguyen, T., Nguyen, T.H., Sakai-Tagawa, Y., Horimoto, T., Kida, H. and Kawaoka, Y. 2006. Pathogenicity of H5N1 influenza A viruses isolated in Vietnam between late 2003 and 2005. *J. Vet. Med. Sci.*, 68 : 735-737.
- 2) Muramoto, Y., Le, T.Q., Phuong, L.S., Nguyen, T., Nguyen, T.H., Sakai-Tagawa, Y., Iwatsuki-Horimoto, K., Horimoto, T., Kida, H. and Kawaoka, Y. 2006. Molecular characterization of the hemagglutinin and neuraminidase genes of H5N1 influenza A viruses isolated from poultry in Vietnam from 2004 to 2005. *J. Vet. Med. Sci.*, 68 : 527-531.
- 3) Wei, H.L., Bai, G.R., Mweene, A.S., Zhou, Y.C., Cong, Y.L., Pu, J., Wang, S., Kida, H. and Liu, J.H. 2006. Rapid detection of avian influenza virus a and subtype H5N1 by single step multiplex reverse transcription-polymerase chain reaction. *Virus Genes.*, 32 : 261-267.
- 4) Isoda, N., Sakoda, Y., Kishida, N., Bai, G.R., Matsuda, K., Umemura, T. and Kida, H. 2006. Pathogenicity of a highly pathogenic avian influenza virus, A/chicken/Yamaguchi/7/04 (H5N1) in different species of birds and mammals. *Arch. Virol.*, 151 : 1267-1279.
- 5) Ito, H., Ito, T., Hikida, M., Yashiro, J., Otsuka, A., Kida, H. and Otsuki, K. 2006. Outbreak of highly pathogenic avian influenza in Japan and anti-influenza virus activity of povidone-iodine products. *Dermatology.*, 212 : 115-118.
- 6) Muramoto, Y., Takada, A., Fujii, K., Noda, T., Iwatsuki-Horimoto, K., Watanabe, S., Horimoto, T., Kida, H. and Kawaoka, Y. 2006. Hierarchy among viral RNA (vRNA) segments in their role in vRNA incorporation into influenza A virions. *J. Virol.*, 80 : 2318-2325.
- 7) Bai, G.R., Sakoda, Y., Mweene, A.S., Fujii, N., Minakawa, H. and Kida, H. 2006. Improvement of a rapid diagnosis kit to de-

- tect either influenza A or B virus infections. *J. Vet. Med. Sci.*, 68 : 35-40.
- 8) Kida, H. and Sakoda, Y. 2006. Library of influenza virus strains for vaccine and diagnostic use against highly pathogenic avian influenza and human pandemics. *Dev. Biol. (Basel)*., 124 : 69-72.
 - 9) Noda, T., Sagara, H., Yen, A., Takada, A., Kida, H., Cheng, R.H. and Kawaoka, Y. 2006. Architecture of ribonucleoprotein complexes in influenza A virus particles. *Nature*., 439 : 490-492.
 - 10) Muramoto, Y., Ozaki, H., Takada, A., Park, C.H., Sunden, Y., Umemura, T., Kawaoka, Y., Matsuda, H. and Kida, H. 2006. Highly pathogenic H5N1 influenza virus causes coagulopathy in chickens. *Microbiol Immunol.*, 50 : 73-81.
 - 11) Ohishi, K., Murayama, T., Ninomiya, A., Kida, H., Zenitani, R., Bando, T., Fujise, Y., Nakamatsu, K., Miyazaki, N. and Boltunov, A.N. 2006. Serologic investigation of influenza A virus infection cetaceans from the Western North Pacific and the Southern oceans. *Marine Mammal Sci.*, 22 : 214-221.
 - 12) Kameyama, K., Sakoda, Y., Tamai, K., Igarashi, H., Tajima, M., Mochizuki, T., Namba, Y. and Kida, H. 2006. Development of an immunochromatographic test kit for rapid detection of bovine viral diarrhoea virus antigen. *J. Virol. Methods*., 138 : 140-146.
 - 13) Kameyama, K., Sakoda, Y., Tamai, K., Nagai, M., Akashi, H. and Kida, H. 2006. Genetic recombination at different points in the N^{pro}-coding region of bovine viral diarrhoea viruses and the potentials to change their antigenicities and pathogenicities. *Virus Res.*, 116 : 78-84.
 - 14) Shin, J.H., Sakoda, Y., Kim, J.H., Tanaka, T., Kida, H., Kimura, T., Ochiai, K. and Uemura, T. 2006. Efficacy of Intracerebral Immunization against Pseudorabies Virus in Mice. *Microbiol Immunol.*, 50 : 823-830.
 - 15) Malamo, M., Sakoda, Y., Ozaki, H. and Kida, H. 2006. Development of ELISA to detect antibodies specific to *Mycobacterium avium subsp. paratuberculosis* with truncated 34 kDa proteins. *Jpn. J. Vet. Res.*, 54 : 99-107.

Publications other than original articles

- 1) Kida, H. 2006. Highly pathogenic avian influenza virus. *Nichii-journal*, 134 : 1940-1944. (in Japanese)
- 2) Kida, H. 2006. Gene pool of influenza virus in nature. *Current Therapy*, 24 : 1022-1026. (in Japanese)
- 3) Kida, H. 2006. Ecology of influenza virus. *Medical Science Digest*, 32 : 4-5. (in Japanese)
- 4) Matsumoto, K. and Kida, H. 2006. Influenza pandemic. *Kagaku Ryouhou no Ryouiki*, 22 : 85-90. (in Japanese)

Laboratory of Infectious Diseases Original articles

- 1) Konnai, S., Usui, T., Ikeda, M., Kohara, J., Hirata, T., Okada, K., Ohashi, K. and Onuma, M. 2006. Tumor necrosis factor α up-regulation in spontaneously proliferating cells derived from bovine leukemia virus-infected cattle. *Arch. Virol.*, 151 : 347-360.
- 2) Imamura, S., Namangala, B., Tajima, T., Tembo, E. M., Yasuda, J., Ohashi, K. and Onuma, M. 2006. Two serine protease in-

- hibitor (serpin) that induce a bovine protective immune response against *Rhipicephalus appendiculatus* ticks. *Vaccine*, 24 : 2230-2237.
- 3) Nakajima, C., Imamura, S., Konnai, S., Yamada, S., Nishikado, H., Ohashi, K. and Onuma, M. 2006. A novel gene encoding a thrombin inhibitory protein in a cDNA library from *Haemaphysalis longicornis* salivary gland. *J. Vet. Med. Sci.*, 68 : 447-452.
 - 4) Tsuda, A., Witola, W. H., Konnai, S., Ohashi, K. and Onuma, M. 2006. The effect of TAO expression on PCD-like phenomenon development and drug resistance in *Trypanosoma brucei*. *Parasitol. Int.*, 55 : 135-142.
 - 5) Kohara, J., Konnai, S. and Onuma, M. 2006. Experimental transmission of Bovine leukemia virus in cattle via rectal palpation. *Jpn. J. Vet. Res.*, 54 : 25-30.
 - 6) Takagi, M., Onuma, M. and Ohashi, K. 2006. The role of a short form of p53 in chicken lymphoblastoid cell lines during apoptosis. *J. Vet. Med. Sci.*, 68 : 561-566.
 - 7) Takagi, M., Ohashi, K. and Onuma, M. 2006. The presence of the *p53* transcripts with truncated open reading frames in Marek's disease tumor-derived cell lines. *Leukemia Res.*, 30 : 987-992.
 - 8) Usui, T., Konnai, S., Ohashi, K. and Onuma, M. 2006. Expression of tumor necrosis factor- α in IgM⁺ B-cells from bovine leukemia virus-infected lymphocytotic sheep. *Vet. Immunol. Immunopathol.*, 112 : 296-301.
 - 9) Konnai, S., Usui, T., Ikeda, M., Kohara, J., Hirata, T., Okada, K., Ohashi, K. and Onuma, M. 2006. Tumor necrosis factor-alpha genetic polymorphism may contribute to progression of bovine leukemia virus-infection. *Microb. Infect.*, 8 : 2163-2171.
 - 10) Odbileg, R., Purevtseren, B., Batsukh, Z., Konnai, S., Ohashi, K. and Onuma, M. 2006. Complete cDNA sequences and phylogenetic analysis of Th1 and Th2 cytokines of bactrian camel (*Camelus bactrianus*). *J. Vet. Med. Sci.*, 68 : 941-946.
 - 11) Konnai, S., Imamura, S., Nakajima, C., Witola, W. H., Yamada, S., Simuunza, M., Nambota, A., Yasuda, J., Ohashi, K. and Onuma, M. 2006. Acquisition and transmission of *Theileria parva* by vector tick, *Rhipicephalus appendiculatus*. *Acta Trop.*, 99 : 34-41.
 - 12) Mingala, C. N., Odbileg, R., Konnai, S., Ohashi, K. and Onuma, M. 2006. Comparative assessment of Th1 and Th2 cytokines of swamp type buffalo and other bubaline breeds by molecular cloning, sequencing and phylogenetics. *Vet. Immunol. Immunopathol.*, 113 : 348-356.

Publications other than original articles

- 1) Onuma, M. and Igimi, M. 2006. Various recognition of foreign antigens and microbial infectious. *J. Vet. Med.*, 59 : 553-554. (in Japanese).
- 2) Nakajima, C. and Onuma, M. 2006. Search for variable biological molecules derived from tick salivary gland -- development of new anti-tick vaccine --. *J. Vet. Med.*, 59 : 735-742. (in Japanese).
- 3) Onuma, M. 2006. Infection and Infectious diseases (General Introduction), bovine leukosis and Maedi-visna virus infection, et al. In : *Infectious Diseases of Animals*, Onuma, M. et al eds., pp. 2-46, 62-67, 76-90, 110. (in Japanese).
- 4) Ohashi, K. 2006. Marek's diseases, Avian leukosis, Egg drop syndrome 1976, et al. In : *Infectious Diseases of Animals*, Onuma, M. et al eds., pp. 204-205, 210, 212. (in Japanese).

Laboratory of Parasitology
Original articles

- 1) Nonaka, N., Kamiya, M. and Oku, Y. 2006. Towards the control of *Echinococcus multilocularis* in the definitive host in Japan. *Parasitol. Int.*, 55 : S263-S266.
- 2) Sarashina, T., Uzuki, Y., Tanabe, S., Oku, Y., Watanabe, Y., Kurosawa, N. and Nishimura, M. 2006. Survey of coccidial oocysts and parasite eggs in feces of free-ranging *Grus japonensis*. *J. Vet. Med. Sci.*, 68 : 873-875.
- 3) Marco, J. D., Bhutto, A. M., Soomro, F. R., Baloch, J. H., Barroso, P. A., Kato, H., Uezato, H., Katakura, K., Korenaga, M., Nonaka, S. and Hashiguchi, Y. 2006. Multilocus enzyme electrophoresis and cytochrome b gene sequencing-based identification of *Leishmania* isolates from different foci of cutaneous leishmaniasis in Pakistan. *Am. J. Trop. Med. Hyg.*, 75 : 261-266.
- 4) Namikawa, K., Watanabe, M., Lynch, J., Sugaki, Y., Kitai, T., Sunaga F., Katakura, K. and Ogata, M. 2006. A canine case of *Leishmania infantum* infection in Japan. *Jpn. J. Vet. Dermatol.*, 12 : 11-15. (in Japanese with English abstract)
- 5) Matoba, Y., Yamada, D., Asano, M., Oku, Y., Kitaura, K., Yagi, K., Tenora, F. and Asakawa, M. 2006. Parasitic helminthes from feral raccoons (*Procyon lotor*) in Japan. *Helminthologia*, 43 : 139-146.
- 6) Kamiya, M., Lagapa, J. T., Ganzorig, S., Kobayashi, F., Nonaka, N. and Oku, Y. 2007. Echinococcosis risk among domestic definitive hosts, Japan. *Emerg. Inf. Dis.*, 13 : 346-347.
- 7) Okamoto, M., Oku, Y., Kurosawa, T. and Kamiya, M. 2007. Genetic uniformity of *Echinococcus multilocularis* collected from different intermediate host species in Hokkaido, Japan. *J. Vet. Med. Sci.*, 69 : 159-163.
- 8) Ganzorig, S., Oku, Y., Gardner, S. L. and Kamiya, M. 2007. Multiplication of ovaries in *Ctenotaenia marmotae* (Frolich, 1802) (Cestoda : Anoplocephalidae). *Comp. Parasitol.*, 74 : 151-153.
- 9) Kamiya, M., Lagapa, J. T. G., Nonaka, N., Ganzorig, S., Oku, Y. and Kamiya, H. 2006. Current control strategies targeting sources of echinococcosis in Japan. *Rev. Sci. Tech. Off. Int. Epiz.*, 25 : 1055-1066.
- 10) Kanai, Y., Inoue, T., Mano, T., Nonaka, N., Katakura, K. and Oku, Y. 2007. Epizootiological survey of *Trichinella* spp. infection in carnivores, rodents and insectivores in Hokkaido, Japan. *Jpn. J. Vet. Res.*, 54 : 175-182.
- 11) Kanai, Y., Nonaka, N., Katakura, K. and Oku, Y. 2006. *Trichinella nativa* and *Trichinella* T9 in the Hokkaido island, Japan. *Parasitol. Int.*, 55 : 313-315.
- 12) Chang, S. L., Ooi, H. K., Nonaka, N., Kamiya, M. and Oku, Y. 2006. Development of *Taenia saginata asiatica* cysticerci to infective stage and its tapeworm stage in Mongolian gerbils. *J. Helminthol.*, 80 : 219-223.
- 13) Kawai, S., Ikeda, E., Sugiyama, M., Matsumoto, J., Higuchi, T., Zhang, H., Khan, N., Tomiyoshi, K., Inoue, T., Yamaguchi, H., Katakura, K., Endo, K., Matsuda, H., Suzuki, M. 2006. Enhancement of splenic glucose metabolism during acute malarial infection : correlation of findings of FDG-PET imaging with pathological changes in a primate model of severe human malaria. *Am. J. Trop. Med. Hyg.*, 74 : 353

-360.

- 14) Elkhateeb, A., Yamada, K., Takahashi, K., Matsuura, H., Yamasaki, M., Maede, Y.,

Katakura, K., Nabeta, K. 2007. Antibabesial compounds from *Berberis vulgaris*. *Nat. Prod. Commun.*, 2 : 173-175.

Publications other than original articles

- 1) Inagakai, M., Nonaka, N., Inoue, T., Yagi, K., Katakura, K. and Oku, Y. 2007. Improvement of copro-DNA detection for diagnosis in prepatent period of *Echinococcus multilocularis* infection in dogs. *Jpn. J. Vet. Parasitol.*, 5 : 35. (in Japanese)
- 2) Oku, Y., Iwaki, T., Ganzorig, S., Nonaka, N., Miyahara, T., Okazaki, K. and Kamiya, M. 2007. Control trial against *Echinococcus multilocularis* by local residents. *Jpn. J. Vet. Parasitol.*, 5 : 36. (in Japanese)
- 3) Tsubota, K., Nakatsuji, S., Anagawa, A., Murakami, Y., Ikegami, H., Okazaki, Y., Yoshizawa, K., Fujihira, S., Matsumoto, M., Oku, Y. and Oishi, Y. 2007. *Cysticercus tenuicollis* infection in a cynomolgus monkey. *Jpn. J. Vet. Parasitol.*, 5 : 30. (in Japanese)
- 4) Taniguchi, S., Osanai, Y., Matsumoto, J., Uezato, H., Kato, H., Bhutto, A. H., Soomro, F. R., Marco, J. D., Barroso, P. A., Hashiguchi, Y. and Katakura, K. 2007. Analysis of *Leishmania* proteins for the serodiagnosis of cutaneous leishmaniasis in Pakistan. *Jpn. J. Vet. Parasitol.*, 5 : 56. (in Japanese)
- 5) Nonaka, N., Inoue, T., Sano, T., Katakura, K., Fukui, D. and Oku, Y. 2006. Identification of animals excreting feces collected in field for epizootiological studies of echinococcosis. *Jpn. J. Vet. Parasitol.*, 4 : 38.
- 6) Kamihiro, S., Nonaka, N., Katakura, K., Yagi, K. and Oku, Y. 2006. Copro-DNA diagnosis of prepatent infection with *Echinococcus multilocularis* in combination with anthelmintic treatment. *Jpn. J. Vet. Parasitol.*, 4 : 39.
- 7) Chang, S. L., Nonaka, N., Ooi, H. K., Kamiya, M. and Oku, Y. 2006. Larval development of *Taenia asiatica* in scid mice and gerbils and their infectivity to humans and alternative definitive hosts. *Jpn. J. Vet. Parasitol.*, 4 : 40.
- 8) Nonaka, N. 2007. Hookworm infection. In : *Canine Practice based on the major clinical signs*. Maede, Y. ed., Dairyman, Sapporo, pp. 581-583. (in Japanese)
- 9) Nonaka, N. 2007. Roundworm infection. In : *Canine Practice based on the major clinical signs*. Maede, Y. ed., Dairyman, Sapporo, pp. 669-672. (in Japanese)
- 10) Nonaka, N. 2007. Coccidiosis. In : *Canine Practice based on the major clinical signs*. Maede, Y. ed., Dairyman, Sapporo, pp. 696-698. (in Japanese)
- 11) Nonaka, N. 2007. Giardiasis. In : *Canine Practice based on the major clinical signs*. Maede, Y. ed., Dairyman, Sapporo, pp. 694-695. (in Japanese)
- 12) Nonaka, N. 2007. Trichomonad enteritis. In : *Canine Practice based on the major clinical signs*. Maede, Y. ed., Dairyman, Sapporo, pp. 692-693. (in Japanese)
- 13) Nonaka, N. 2007. Amebic colitis. In : *Canine Practice based on the major clinical signs*. Maede, Y. ed., Dairyman, Sapporo, pp. 689-691. (in Japanese)
- 14) Nonaka, N. 2007. Whipworm infection. In : *Canine Practice based on the major clinical signs*. Maede, Y. ed., Dairyman, Sapporo, pp. 686-688. (in Japanese)
- 15) Oku, Y. 2007. Cestodiasis. In : *Canine Practice based on the major clinical signs*. Maede, Y. ed., Dairyman, Sapporo, pp. 708-719. (in Japanese)
- 16) Oku, Y. 2007. Toxoplasmosis. In : *Canine*

- Practice based on the major clinical signs.* Maede, Y. ed., Dairyman, Sapporo, pp. 315-317. (in Japanese)
- 17) Oku, Y. 2007. Neosporosis. In : *Canine Practice based on the major clinical signs.* Maede, Y. ed., Dairyman, Sapporo, pp. 318-320. (in Japanese)
- 18) Katakura, K. 2007. Cryptosporidiosis. In : *Canine Practice based on the major clinical signs.* Maede, Y. ed., Dairyman, Sapporo, pp. 701-702. (in Japanese)
- 19) Katakura, K. 2007. Leishmaniasis. In : *Canine Practice based on the major clinical signs.* Maede, Y. ed., Dairyman, Sapporo, pp. 228-230. (in Japanese)
- 20) Katakura, K. 2007. Coccidioidomycosis. In : *Canine Practice based on the major clinical signs.* Maede, Y. ed., Dairyman, Sapporo, pp. 165-166. (in Japanese)
- 21) Matsumoto, J. and Katakura, K. 2007. Schistosomiasis japonica. In : *Canine Practice based on the major clinical signs.* Maede, Y. ed., Dairyman, Sapporo, pp. 725-726. (in Japanese)

Laboratory of Experimental Animal Science Original articles

- 1) Cho, A-R., Uchio-Yamada, K., Torigai, T., Miyamoto, T., Miyoshi, I., Matsuda, J., Kurosawa, T., Kon, Y., Asano, A., Sasaki, N. and Agui, T. 2006. Deficiency of the tensin 2 gene in the ICGN mouse, an animal model for congenital nephrotic syndrome. *Mamm. Genome*, 17 : 407-416.
- 2) Masuda, K., Miyamoto, T., Cho, A-R. and Agui, T. 2006. Analysis of the cell cycle of fibroblasts derived from the LEC rat after X-irradiation. *Jpn. J. Vet. Res.*, 53 : 141-148.
- 3) Agui, T. 2006. *IV-E 1. Use of Laboratory Animals.* VII-A 3 (1). Infectious diseases in livestock and vaccine. In : *Handbook of Experimental Immunology.* Ed. Izumi Nakashima, The University of Nagoya Press, p170-174, p325 (in Japanese)
- 4) Izawa, M., Kitamura, N., Odake, N., Maki, F., Kanehira, K., Nemoto, H., Yamaguchi, M., Yamashita, A., Sasaki, N., Hattori, M., Kanayama, S. and Yoneda, Y. 2006. A rapid and simple transcriptional sequencing method for GC-rich DNA regions. *Jpn. J. Vet. Res.*, 53 : 159-68.

Laboratory of Internal Medicine Original articles

- 1) Yamato, O., Jo, E.O., Satoh, H., Yamauchi, T., Kobayashi, A., Yamasaki, M. and Maede, Y. 2006. Use of amnion and placenta in neonatal screening for canine GM-1-gangliosidosis and the risk of diagnostic misclassifications. *Veterinary Clinical Pathology.*, 35 : 91-94.
- 2) Hasegawa, D., Yamato, O., Kobayashi, M., Fujita, M., Nakamura, S., Takahashi, K., Satoh, H., Shoda, T., Hayashi, D., Yamasaki, M., Maede, Y., Arai, T. and Orima, H. 2006. Clinical and molecular analysis of GM2 gangliosidosis in two apparent littermate kittens of Japanese domestic cat. *J. Feline Med. Surg.* (in Press)

Laboratory of Veterinary Surgery

Original articles

- 1) Bosnakovski, D., Mizuno, M., Kim, G., Takagi, S., Okumura, M. and Fujinaga, T. 2006. Chondrogenic differentiation of bovine bone marrow mesenchymal stem cells (MSCs) in different hydrogels : influence of collagen type II extracellular matrix on MSC chondrogenesis. *Biotechnol. Bioeng.*, 93 : 1152-1163.
- 2) Osaki, T., Hoshino, S., Hoshino, Y., Takagi, S., Okumura, M., Kadosawa, T. and Fujinaga, T. 2006. Clinical pharmacokinetics of anti-angiogenic photodynamic therapy with benzoporphyrin derivative monoacid ring-A in dogs having naturally occurring neoplasms. *J. Vet. Med. A Physiol. Pathol. Clin. Med.*, 53 : 108-112.
- 3) Osaki, T., Takagi, S., Hoshino, Y., Okumura, M. and Fujinaga, T. 2006. Intracellular localization and concentration as well as photodynamic effects of benzoporphyrin derivative monoacid ring A in four types of rodent tumor cells. *Cancer Lett.*, 243 : 281-292.

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- 1) Takagi, S., Okumura, M., Shimada, K. and Fujinaga, T. 2006. The clinical efficacy and palatableness of "Agaricus and Shark Cartilage 2" in tumor bearing dogs. *Jpn. J. Small Anim. Pract.*, 25 : 346-353. (in Japanese with English summary)
- 2) Okumura, M., Heeduck, C., Takagi, S., Yamazaki, K., Shimada, K. and Fujinaga, T. 2006. Clinical evaluation on efficacy of oral administration of alcohol extracts of green mussel (GMEL) in canine joint diseases and experimentally-induced arthritis in rats. *Jpn. J. Small Anim. Pract.*, 25 : 188-198. (in Japanese with English summary)
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- 5) Takagi, S. 2006. Apocrine gland adenocarcinoma treated by surgical resection of metastatic pelvic lymph node and administration of melphalan in a dog. *Small Anim. Clin.*, 146 : 11-15. (in Japanese)
- 6) Takagi, S. and Okumura, M. 2006. Bone and joint tumor. *InfoVets*, 9 : 35-40. (in Japanese)
- 7) Okumura, M. 2006. Non-inflammatory arthropathies in canine elbow joints. *Tech. Mag. Vet. Surg.*, 10 : 50-55. (in Japanese)
- 8) Okumura, M. 2006. Inflammatory arthropathies in dogs. *Tech. Mag. Vet. Surg.*, 10 : 56-61. (in Japanese)
- 9) Okumura, M. 2006. Canine osteoarthritis. *SV Report*, 37 : 1 - 8. (in Japanese)
- 10) Okumura, M. 2006. Case reports in canine osteoarthritis. *SV Report*, 37 : 9 -16. (in Japanese)
- 11) Okumura, M. 2006. Education and international cooperation. *J. Jpn. Vet. Med. Assoc.*, 59 : 375-377. (in Japanese)

- 12) Okumura, M. 2006. Malformation of bone and joint congruity in young dogs. Easy correction of deformity of bones in growing dogs. *InfoVets*, 9 : 32-38. (in Japanese)
- 13) Okumura, M. 2006. Essence of fracture repair in dogs. *InfoVets*, 9 : 27-32. (in Japanese)
- 14) Okumura, M. 2006. Principles for understanding inflammatory arthropathies. Diagnosis of inflammatory arthropathies and limitation of anti-rheumatic treatments. *InfoVets*, 9 : 22-29. (in Japanese)
- 15) Okumura, M. and Sunaga, T. 2006. Compressive pathology of spine other than intervertebral disc disease. Case reports of extradural myelolipoma and intradural hematoma. *InfoVets*, 9 : 33-37. (in Japanese)
- 16) Osaki, T. and Okumura, M. 2006. Pathophysiology and Management of instability and luxation of shoulder joints in small dogs. *InfoVets*, 9 : 48-53. (in Japanese)
- 17) Hashimoto, Y., Kon, Y., Okumura, M. and Ito, S. 2006. Trial of reduction and replacement of animal usage in veterinary education. Current situation of veterinary anatomy and veterinary surgery in European countries. *J. Clin. Vet. Med.*, 24 : 1-8. (in Japanese)

Laboratory of Comparative Pathology Original articles

- 1) Kang, S.-K., Park, N.-Y., Cho, H.-S., Shin, S.-S., Kang, M.-I., Kim, S.-K., Hyun, C., Park, I.-C., Kim, J.-T., Jeong, C., Park, S.-H., Park, S.-J., Jeong, J.-H., Kim, Y.-J., Ochiai, K., Umemura, T. and Cho, K.-O. 2006. Relationship between DNA ploidy and proliferative cell nuclear antigen index in canine hemangiopericytoma. *J. Vet. Diagn. Invest.*, 18 : 211-214.
- 2) Shin, J.-H., Sakoda, Y., Kim, J.-H., Tanaka, T., Kida, H., Kimura, T., Ochiai, K. and Umemura, T. 2006. Efficacy of intracerebral immunization against pseudorabies virus in mice. *Microbiol. Immunol.*, 50 : 823-830.
- 3) Toyoda, T., Ochiai, K., Hatai, H., Murakami, M., Ono, E., Kimura, T. and Umemura, T. 2006. Cerebellar hypoplasia associated with an avian leukosis virus inducing fowl glioma. *Vet. Pathol.*, 43 : 294-301.
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- 5) Hasebe, R., Kimura, T., Nakamura, K., Ochiai, K., Okazaki, K., Wada, R. and Umemura, T. 2006. Differential susceptibility of equine and mouse brain microvascular endothelial cells to equine herpesvirus 1 infection. *Arch. Virol.*, 151 : 775-786.
- 6) Umemura, T. and Wako, Y. 2006. Pathogenesis of osteomalacia in itai-itai disease. *J. Toxicol. Pathol.*, 19 : 69-74.
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H. 2006. Pathogenicity of a highly pathogenic avian influenza virus, A/chicken/Yamaguchi/7/04 (H5N1) in different spe-

cies of birds and mammals. *Arch. Virol.*, 151 : 1267-1279.

Laboratory of Theriogenology Original articles

- 1) Malcuit, C., Maserati, M., Takahashi, Y., Page, R. and Fissore, R.A. 2006. Intracytoplasmic sperm injection in the bovine induces abnormal $[Ca^{2+}]_i$ responses and oocyte activation. *Reprod. Fertil. Dev.*, 18 : 39-51.
- 2) Nagano, M., Katagiri, S. and Takahashi, Y. 2006. Relationship between bovine oocyte morphology and in vitro developmental potential. *Zygote*, 14 : 53-61.
- 3) Elsheikh, A.S., Takahashi, Y., Katagiri, S. and Kanagawa, H. 2006. Sucrose-exposed chemically enucleated mouse oocytes support blastocyst development of reconstituted embryos. *Reprod. Fert. Dev.*, 18 : 697-701.
- 4) Sakaguchi, M., Sasamoto, Y. Suzuki, T., Takahashi, Y. and Yamada, Y. 2006. Fate of cystic ovarian follicles and the subsequent fertility of early postpartum dairy cows. *Vet. Rec.*, 159 : 197-201.
- 5) Katagiri, S. and Takahashi, Y. 2006. Effect of normalization of epidermal growth factor profile in the endometrium on restoration of fertility in repeat breeder cows. *Anim. Reprod. Sci.*, 95 : 54-66.
- 6) Hirayama, H., Kageyama, S., Takahashi, Y., Moriyasu, S., Sawai, K., Onoe, S., Watanabe, K., Kojiya, S., Notomi, T. and Minamihashi, A. 2006. Rapid sexing of water buffalo (*Bubalus bubalis*) embryos using loop-mediated isothermal amplification. *Theriogenology*, 66 : 1249-56.
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- 5) Katagiri, S. 2006. Textbook of Theriogenology, 3rd Edition. Eds. Hamana, K., Nakao T. and Tsumagari, S. Buneido Pub. Co. Ltd., Tokyo, pp. 49-60 (*in Japanese*).

Laboratory of Molecular Medicine Original articles

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- 5) Sato, K., Shikano, S., Xia, G., Takao, J., Chung, J. S., Cruz, P. D. Jr., Xie, X. S. and Ariizumi, K. 2006. Selective expression of vacuolar H⁺-ATPase subunit d2 by particular subsets of dendritic cells among leukocytes. *Mol. Immunol.*, 43 : 1443-1453.
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Laboratory of Public Health Original articles

- 1) Baek, L. J., Kariwa, H., Lokugamage, K., Yoshimatsu, K., Arikawa, J., Takashima, I., Kang, J. I., Moon, S. S., Chung, S. Y., Kim, E. J., Kang, H. J., Song, K. J., Klein, T. A., Yanagihara, R. and Song, J. W. 2006. Soochong virus : an antigenically and genetically distinct hantavirus isolated from *Apodemus peninsulae* in Korea. *J. Med. Virol.*, 78 : 290-297.
- 2) Shirato, K., Miyoshi, H., Kariwa, H. and Takashima, I. 2006. The kinetics of proinflammatory cytokines in murine peritoneal macrophages infected with envelope protein-glycosylated or non-glycosylated West Nile virus. *Virus Res.*, 121 : 11-16.
- 3) Pattamadilok, S., Lee, B. H., Kumperasart, S., Yoshimatsu, K., Okumura, M., Nakamura, I., Araki, K., Khoprasert, Y., Dangsupa, P., Panlar, P., Jandrig, B., Kruger, D. H., Klempa, B., Jakel, T., Schmidt, J., Ulrich, R., Kariwa, H. and Arikawa, J. 2006. Geographical distribution of hantaviruses in Thailand and potential human health significance of Thailand virus. *Am. J. Trop. Med. Hyg.*, 75 : 994-1002.
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- 5) Obara, M., Yoshii, K., Kawata, T., Hayasaka, D., Goto, A., Mizutani, T., Kariwa, H. and Takashima, I. 2006. Development of an enzyme-linked immunosorbent assay for serological diagnosis of tick-borne encephalitis using subviral particles. *J. Virol. Methods*, 134 : 55-60.
- 6) Kariwa, H., Fujii, N. and Takashima, I. 2006. Inactivation of SARS coronavirus by means of povidone-iodine, physical conditions and chemical reagents. *Dermatology*, 212 (Suppl. 1) : 119-123.

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- 1) Takashima, T. 2006. Tick-borne encephalitis. *Progress in Medicine*, 26 : 61-63. (in Japanese)
- 2) Kariwa, H., Nakauchi, M., Takashima, I. 2006. Epidemiology of SARS. In : *SARS*, pp. 29-40, Mizutani, T. eds., Transworld Research Network, Kerala, India.
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Laboratory of Radiation Biology Original articles

- 1) Asanuma, T., Kawahara, T., Inanami, O., Nakao, M., Nakaya, K., Ito, A., Takiguchi, M., Hashimoto, A. and Kuwabara, M. 2006. Magnetic resonance imaging of alveolar echinococcosis experimentally induced in the rat lung. *J. Vet. Med. Sci.*, 68 : 15-20.
- 2) Niwa, K., Sakai, J., Karino, T., Aonuma, H., Watanabe, T., Ohyama, T., Inanami O. and Kuwabara, M. 2006. Reactive oxygen species mediate shear stress-induced fluid-phase endocytosis in vascular endothelial cells. *Free Radic. Res.*, 40 : 167-174.
- 3) Waki, K., Inanami, O., Yamamori, T., Nagahata, H., and Kuwabara, M. 2006. Involvement of protein kinase C δ in the activation of NADPH oxidase and the phagocytosis of neutrophils. *Free Radic. Res.*, 40 : 359-367.
- 4) Takahashi, E., Inanami, O., Asanuma, T. and Kuwabara, M. 2006. Effects of ceramide inhibition on radiation-induced apoptosis in human leukemia MOLT-4 cells. *J. Radiat. Res.*, 47 : 19-25.
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- 7) Nakajima, T., Wakasa, T., Okuma, Y., Inanami, O., Nomura, Y., Kuwabara, M. and Kawahara, K. 2006. Dual inhibition of protein phosphatase -1/2A and calpain rescue nerve growth factor-differentiated PC12 cells from oxygen-glucose deprivation-induced cell death. *J. Neurosci. Res.*,

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- 8) Kashiwakura, I., Inanami, O., Abe, Y., Satoh, K., Takahashi, T. A. and Kuwabara, M. 2006. Regeneration of megakaryocytopoiesis and thrombopoiesis in vitro from X-irradiated human hematopoietic stem cells. *Radiat. Res.*, 116 : 345-351.
 - 9) Monzen, S., Mori, T., Takahashi, K., Abe, M., Inanami, O., Kuwabara, M. and Kashiwakura, I. 2006. The effects of (-)-epigallocatechin-3-gallate on the proliferation and differentiation of human megakaryocytic progenitor cells. *J. Radiat. Res.*, 47 : 213-220.
 - 10) Watanabe, Y., Inanami, O., Horiuchi, M., Hiraoka, W., Shimoyama, Y., Inagaki, F. and Kuwabara, M. 2006. Identification of pH-sensitive regions in the mouse prion by the cysteine-scanning spin-labeling ESR technique. *Biochem. Biophys. Res. Commun.*, 350 : 549-556.
 - 11) Takahashi, E., Inanami, O., Ohta, T., Matsuda, A. and Kuwabara, M. 2006. Lipid raft disruption prevents apoptosis induced by 2'-chloro-2'-deoxyadenosine (Cladribine) in leukemia cell lines. *Leuk. Res.*, 30 : 1555-1561.
 - 12) Horikawa, D. D., Sakashita, T., Katagiri, C., Watanabe, M., Kikawada, T., Nakahara, Y., Hamada, N., Wada, S., Funayama, T., Higashi, S., Kobayashi, Y., Okuda, T. and Kuwabara, M. 2006. Radiation tolerance in the tardigrade *Milnesium tagdigradum*. Radiation tolerance in the tardigrade *Milnesium tardigradum*. *Int. J. Radiat. Biol.*, 82 : 843-838.
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- 1) Kuwabara, M., Inanami, O., Yasui, H., Iizuka, D. and Matsuda, A. 2006. Radiation sensitization effects of ethynyl-cytidine. *Gann-No-Rinsho*, 52, 1-6. (in Japanese)
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Laboratory of Toxicology Original articles

- 1) Jinno, A., Maruyama, Y., Ishizuka, M., Kazusaka, A., Nakamura, A. and Fujita, S. 2006. Induction of cytochrome P450-1A by the equine estrogen equilenin, a new endogenous aryl hydrocarbon receptor ligand. *J. Steroid. Biochem. Mol. Biol.*, 98 : 48-55.
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- 5) Muzandu, K., Ishizuka, M., Sakamoto, K. Q., Shaban, Z., El, Bohi, K., Kazusaka, A. and Fujita, S. 2006. Effect of lycopene and beta-carotene on peroxynitrite-mediated cellular modifications. *Toxicol. Appl. Pharmacol.*, 215 : 330-340.

Laboratory of Wildlife Biology Original articles

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- 2) Fujii, K., Suzuki, M., Era, S., Kobayashi, M. and Ohtaishi, N. 2006. Tracking Kuril harborseals (*Phoca vitulina stejnegeri*) at Cape Erimo using a new mobile phone telemetry system. *Animal Behaviour and Management*, 42 : 181-189.
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Laboratory of Prion Diseases Original articles

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- 5) Watanabe, Y., Inanami, O., Horiuchi, M., Hiraoka, W., Shimoyama, Y., Inagaki, F. and Kuwabara, M. 2006. Identification of pH-sensitive regions in the mouse prion by the cysteine-scanning spin-labeling ESR technique. *Biochem. Biophys. Res. Commun.*, 350 : 549-556.

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Veterinary Teaching Hospital
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- 4) Osaki, T., Hoshino, S., Hoshino, Y., Takagi, S., Okumura, M., Kadosawa, T. and Fujinaga, T. 2006. Clinical pharmacokinetics of anti-angiogenic photodynamic therapy with benzoporphyrin derivative monoacid ring-A in dogs having naturally occurring neoplasms. *J. Vet. Med. A*, 53 : 108-112.

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- 1) Tajima, M. 2006. Bovine leukosis. *J. Hokkaido Vet. Med. Assoc.*, 50 : 221-225. (in Japanese)
- 2) Tajima, M. 2006. Bovine viral diarrhea mucosal disease. In ; *Infectious Diseases of Animals*, 2nd ed., pp108, Onuma, M. et al eds., Kindai-Shuppan, Tokyo. (in Japanese)
- 3) Tajima, M. 2006. Metabolic diseases. In : *The 5 minute Veterinary Consult, Canine and Feline*. 3rd ed., pp1238-1241, 1244-1245, 1250 - 1261, 1268 - 1273, 1277, 1296 - 1303, 1306 - 1307, 1310 - 1311, 1314 - 1317, Tilley, L.P. and Smith Jr., F.W.K. eds, Intertex, Tokyo. (translated in Japanese).
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Research Center for Zoonosis Control

Department of Global Epidemiology

Original articles

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- 2) Okazaki, K., Fujii, S., Takada, A. and Kida, H. 2006. The amino-terminal residue of glycoprotein B is critical for neutralization of bovine herpesvirus 1. *Virus Res.*, 115 : 105-111.
- 3) Muramoto, Y., Ozaki, H., Takada, A., Park, C.H., Sunden, Y., Umemura, T., Kawaoka, Y., Matsuda, H. and Kida, H. 2006. Highly Pathogenic H5N1 Influenza Virus Causes Coagulopathy in Chickens. *Micobiol. Immunol.*, 50 : 73-81.
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