



# HOKKAIDO UNIVERSITY

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## PUBLICATIONS BY THE STAFF OF THE GRADUATE SCHOOL OF VETERINARY MEDICINE

### Laboratory of Anatomy

#### Original articles

- 1) Ichii, O., Konno, A., Sasaki, N., Endoh, D., Hashimoto, Y. and Kon, Y. 2008. Autoimmune glomerulonephritis induced in congenic mouse strain carrying telomeric region of chromosome 1 derived from MRL/MpJ. *Histol. Histopathol.*, **23**: 411-422.
- 2) Khan, M. Z. I., Akter, S. H., Islam, M. N., Karim, M. R., Islam, M. R. and Kon, Y. 2008. The effect of selenium and vitamin E on the lymphocytes and immunoglobulin-containing plasma cells in the lymphoid organ and mucosa-associated lymphatic tissues of broiler chickens. *Anat. Histol. Embryol.*, **37**: 52-59.
- 3) Otsuka, S., Suzuki, M., Kamezaki, N., Shima, T., Wakatsuki, M., Kon, Y. and Ohtaishi, N. 2008. Growth-related changes in histology and immunolocalization of steroid hormone receptors in gonads of the immature male green turtle (*Chelonia mydas*). *J. Exp. Zool. Part A, Ecol. Genet. Physiol.*, **309A**: 166-174.
- 4) Ichii, O., Konno, A., Sasaki, N., Endoh, D., Hashimoto, Y. and Kon, Y. 2008. Altered balance of inhibitory and active Fc gamma receptors in murine autoimmune glomerulonephritis. *Kidney Int.*, **74**: 339-347.
- 5) Otsuka, S., Konno, A., Hashimoto, Y., Sasaki, N., Endoh, D. and Kon, Y. 2008. Oocytes in newborn MRL mouse testes. *Biol. Reprod.*, **79**: 9-16.
- 6) Kanazawa, T., Konno, A., Hashimoto, Y. and Kon, Y. 2008. Expression of hepatic nuclear factor 4 $\alpha$  in developing mice. *Anat. Histol. Embryol.*, doi:10.1111/j.1439-0264.2008.00889.x. (2009. **38**: 34-41)
- 7) Otsuka, S., Konno, A., Hashimoto, Y., Sasaki, N., Endoh, D. and Kon, Y. 2008. Polymorphism in MRL and AKR mice Sry: a candidate gene for the appearance of testicular oocyte. *Jpn. J. Vet. Res.*, **56**: 129-138.
- 8) Nakauchi, M., Kariwa, H., Kon, Y., Yoshii, K., Maeda, A. and Takashima, I. 2008. Analysis of severe acute respiratory syndrome coronavirus structural proteins in virus-like particle assembly. *Microbiol. Immunol.*, **52**: 625-630.
- 9) Ogura A, Oowada, S., Kon, Y., Hirayama, A., Yasui, H., Meike, S., Kobayashi, S., Kuwabara, M. and Inanami, O. 2008. Redox regulation in radiation-induced cytochrome-c release from mitochondria of human lung carcinoma A549 cells. *Cancer Lett.*, doi:10.1016/j.canlet.2008.11.021.

#### Publication other than original articles

- 1) Kon, Y. 2008. Chapter 1, Cytology. In: *Veterinary Histology*, 4th ed., pp.1-19, (Japanese Association of Veterinary Anatomists ed.), Gakusosha, Tokyo. (in Japanese)
- 2) Kon, Y. 2008. Chapter 19, Avian Histology, Urinary system. In: *Veterinary Histology*, 4th ed., pp.297-299, (Japanese Association of Veterinary Anatomists ed.), Gakusosha, Tokyo. (in Japanese)
- 3) Kon, Y. 2008. Chapter 7, Digestive system. In: *Veterinary Anatomy of Domestic Mammals-Textbook and Colour Atlas-*, pp.331-398 (Karah-Atorasu-Juukaibougaku-Hen-shuuiinnkai ed.), Chikusan Shuppan. (Translation in Japanese)
- 4) Kon, Y. 2008. Chapter 22, Integumentary system. In: *Veterinary Embryology*, pp.325-342, Taniguchi, K. *et al.* eds., Gakusosha, Tokyo.

- (Translation in Japanese)
- 5) Hashimoto, Y., 2008. Chapter 9, Lymphatic organ. In: *Veterinary Histology*, 4th ed., pp. 115–123, pp. 127–129, (Japanese Association of Veterinary Anatomists ed.), Gakusosha, Tokyo. (in Japanese)
  - 6) Hashimoto, Y. 2008. Chapter 19, Avian Histology, Lymphatic organ. In: *Veterinary Histology*, 4th ed., pp. 286–288, (Japanese Association of Veterinary Anatomists ed.), Gakusosha, Tokyo. (in Japanese)
  - 7) Hashimoto, Y., 2008. Introduction and General Anatomy. In: *Veterinary Anatomy of Domestic Animals-Textbook and Colour Atlas*, pp. 23–46, (Karah-Atorasu-Juukaibougaku-Henshuuinkai ed.), Chikusan Schuppan. (Translation in Japanese)
  - 8) Hashimoto, Y., 2008. Chapter 4. Hind limb or Pelvic limb. In: *Veterinary Anatomy of Domestic Animals-Textbook and Colour Atlas*, pp. 260–272, (Karah-Atorasu-Juukaibougaku-Henshuuinkai ed.), Chikusan Schuppan. (Translation in Japanese)
  - 9) Hashimoto, Y., 2008. Chapter 19. Topographical-clinical anatomy. In: *Veterinary Anatomy of Domestic Animals-Textbook and Colour Atlas*, pp. 785–804, (Karah-Atorasu-Juukaibougaku-Henshuuinkai ed.), Chikusan Schuppan. (Translation in Japanese)

## Laboratory of Physiology

### Original articles

- 1) Takahashi-Iwanaga, H., Nio-Kobayashi, J., Habara, Y. and Furuya, K. 2008. A dual system of intracellular calcium signaling in glial endings in rat vibrissae. *J. Comp. Neurol.*, **510**: 68–78.
- 2) Ishida, T., Takei, R., Gautam, S. H., Otsuguro, K., Ohta, T., Ito, S., Habara, Y. and Saito, T. 2008. Voltage-gated channel properties of epithelial cells in porcine vomeronasal organ. *Neurosci. Lett.*, **441**: 277–281.
- 3) Yamaguchi, S. and Ishikawa, T. 2008. The electrogenic  $\text{Na}^+ - \text{HCO}_3^-$  cotransporter NBCe1-B is regulated by intracellular  $\text{Mg}^{2+}$ . *Biochem. Biophys. Res. Commun.*, **376**: 100–104.

## Laboratory of Biochemistry

### Original articles

- 1) Omachi, A., Matsushita, Y., Kimura, K. and Saito, M. 2008. Role of uncoupling protein 1 in the anti-obesity effect of  $\beta$ 3-adrenergic agonist in the dog. *Res. Vet. Sci.*, **85**: 214–219.
- 2) Omachi, A., Ishioka, K., Terao, A. and Kimura, K. 2008. Long-term feeding restriction in obese dogs reduces body fat and improves glucose metabolism. *J. Pet Anim. Nutr.*, **11**: 13–19. (in Japanese)
- 3) Ahmed, M., Kimura, K., Soliman, M., Yamaji, D., Ishioka, K., Hagiwara, K. and Saito, M. 2008. Leptin inhibits mitogen-induced proliferation of peripheral T lymphocytes from Holstein cows. *Vet. J.*, **176**: 361–368.
- 4) Kamikawa, A., Ishii, T., Shimada, K., Makondo, K., Inanami, O., Sakane, N., Yoshida, T., Saito, M. and Kimura, K. 2008. Proinsulin C-peptide abrogates Type-1 diabetes-induced increase of renal endothelial nitric oxide synthase in rats. *Diab. Metab. Res. Rev.*, **24**: 331–338.
- 5) Makondo, K., Kamikawa, A., Ahmed, M., Terao, A., Saito, M. and Kimura, K. 2008. Geldanamycin enhances hepatocyte growth

- factor stimulation of eNOS phosphorylation in endothelial cells. *Eur. J. Pharmacol.*, **582**: 110-115.
- 6) Nishino, N., Tamori, Y., Tateya, S., Kawaguchi, T., Shibakusa, T., Mizunoya, W., Inoue, K., Kitazawa, R., Kitazawa, S., Matsuki, Y., Hiramatsu, R., Masubuchi, S., Omachi, A., Kimura, K., Saito, M., Amo, T., Ohta, S., Yamaguchi, T., Osumi, T., Cheng, J., Fujimoto, T., Nakao, H., Nakao, K., Aiba, A., Okamura, H., Fushiki, T. and Kasuga, M. 2008. FSP27 contributes to efficient energy storage in murine white adipocytes by promoting the formation of unilocular lipid droplets. *J. Clin. Invest.*, **118**: 2808-2821.
  - 7) Terao, A., Huang, Z-L., Wisor, J. P., Mochizuki, T., Gerashchenko, D., Urade, Y. and Kilduff, T. S. 2008. Gene expression in the rat brain during prostaglandin D<sub>2</sub> and adenosinically-induced sleep. *J. Neurochem.*, **105**: 1480-1498.

### Publications other than original articles

- 1) Terao, A., Haruyama, T. and Kimura, K. 2008. Roles of the hypocretin/orexins in the regulation of sleep and wakefulness. *Jpn. J. Vet. Res.*, **55**: 75-83.
- 2) Terao, A. 2008. Biological clock and non-rapid eye movement sleep. In: Chronobiology, Eds. Ishida, N. & Honma, K., pp. 72-73, Asakura Co., Ltd., Tokyo. (in Japanese)
- 3) Okamatsu, Y. and Saito, M. 2008. Ectopic expression of UCP1 in WAT enhances leptin sensitivity. *Himankenkyu*, **14**: 265-267. (in Japanese)
- 4) Okamatsu, Y. and Saito, M. 2008. Brown adipose tissue and obesity, metabolic syndrome. In: Obesity and fat energy metabolism, Eds. Kwada, T., Saito, M. and Ogawa, T., pp. 63-81, Kenpakusha Co., Ltd., Tokyo. (in Japanese)
- 5) Saito, M. and Okamatsu, Y. 2008. Brown adipose tissue and adaptation to cold. *Japanese Journal of Mountain Medicine*, **28**: 7-13. (in Japanese)

## Laboratory of Pharmacology

### Original articles

- 1) Murakami M., Ohta T. and Ito S. 2008. Interleukin-1 $\beta$  enhances the action of bradykinin in rat myenteric neurons through up-regulation of glial B1 receptor expression. *Neuroscience*, **151**: 222-231.
- 2) Ohta T., Imagawa T. and Ito S. 2008. Novel gating and sensitizing mechanism of capsaicin receptor (TRPV1): Tonic inhibitory regulation of extracellular sodium through the external protonation sites on TRPV1. *J. Biol. Chem.*, **283**: 9377-9387.
- 3) Otsuguro K., Tang J., Tang Y., Xiao R., Freichel M., Tsvilovskyy V., Ito S., Flockerzi V., Zhu M. X. and Zholos A. V. 2008. Isoform-specific inhibition of TRPC4 channel by phosphatidylinositol 4, 5-bisphosphate. *J. Biol. Chem.*, **283**: 10026-10036.
- 4) Niitsu Y., Sugidachi A., Ogawa T., Jakubowski J. A., Hashimoto M., Isobe T., Otsuguro K. and Asai F. 2008. Repeat oral dosing of prasugrel, a novel P2Y<sub>12</sub> receptor inhibitor, results in cumulative and potent antiplatelet and antithrombotic activity in several animal species. *Eur. J. Pharmacol.*, **579**: 276-282.
- 5) Ishida T., Takei R., Gautam S. H., Otsuguro K., Ohta T., Ito S., Habara Y. and Saito T. 2008. Voltage-gated channel properties of epithelial cells in porcine vomeronasal organ. *Neurosci. Lett.*, **441**: 277-281.

## Publications other than original articles

- 1) Otsuguro K., Yasutake S., Yamaji Y., Ban M., Ohta T. and Ito S. 2008. Why does carbon dioxide produce analgesia? *Alternatives to Animal Testing and Experimentation*, **14**: 101-106.
- 2) Kagiya N. 2008. Guidelines and practices for ethical animal experiments. *Folia Pharmacol. Jpn.*, **131**: 187-193. (in Japanese)
- 3) Ito S. 2008.-PhD (Veterinary Sciences) (10)-Introduction of Graduate School of Veterinary Medicine in Hokkaido University. *J. Jpn. Vet. Med. Assoc.*, **61**: 13-14. (in Japanese)
- 4) Kagiya N. 2008. Perspectives for outside verification on ethical animal experimentation conducted by pharmaceutical industries. *Human science*, **19**: 32-34. (in Japanese)
- 5) Kagiya N. 2008. What should we do for more social understanding on animal experiments? *LABIO21*, **33**: 27-29. (in Japanese)
- 6) Kagiya N. 2008. Animal welfare and laboratory animal science. *Bulletin of Gakushikai*, **872**: 79-84. (in Japanese)

## Laboratory of Microbiology

### Original articles

- 1) Igarashi, M., Ito, K., Kida, H. and Takada, A. 2008. Genetically destined potentials for N-linked glycosylation of influenza virus hemagglutinin. *Virology*, **376**: 323-329.
- 2) Isoda, N., Sakoda, Y., Kishida, N., Soda, K., Sakabe, S., Sakamoto, R., Imamura, T., Sakaguchi, M., Sasaki, T., Kokumai, N., Ohgitali, T., Saijo, K., Sawata, A., Hagiwara, J., Lin, Z. and Kida, H. 2008. Potency of an inactivated avian influenza vaccine prepared from a non-pathogenic H5N1 reassortant virus generated between isolates from migratory ducks in Asia. *Arch. Virol.*, **153**: 1685-1692.
- 3) Ito, M., Nagai, M., Hayakawa, Y., Komae, H., Murakami, N., Yotsuya, S., Asakura, S., Sakoda, Y. and Kida, H. 2008. Genetic Analyses of an H3N8 Influenza Virus Isolate, Causative Strain of the Outbreak of Equine Influenza at the Kanazawa Racecourse in Japan in 2007. *J. Vet. Med. Sci.*, **70**: 899-906.
- 4) Itoh, Y., Ozaki, H., Tsuchiya, H., Okamoto, K., Torii, R., Sakoda, Y., Kawaoka, Y., Ogasawara, K. and Kida, H. 2008. A vaccine prepared from a non-pathogenic H5N1 avian influenza virus strain confers protective immunity against highly pathogenic avian influenza virus infection in cynomolgus macaques. *Vaccine*, **26**: 562-572.
- 5) Kameyama, K., Sakoda, Y., Matsuno, K., Ito, A., Tajima, M., Nakamura, S. and Kida, H. 2008. Cleavage of the NS2-3 protein in the cells of cattle persistently infected with non-cytopathogenic bovine viral diarrhea virus. *Microbiol. Immunol.*, **52**: 277-282.
- 6) Kishida, N., Sakoda, Y., Shiromoto, M., Bai, G. R., Isoda, N., Takada, A., Laver, G. and Kida, H. 2008. H2N5 influenza virus isolates from terns in Australia: genetic reassortants between those of the Eurasian and American lineages. *Virus Genes*, **37**: 16-21.
- 7) Manzoor, R., Sakoda, Y., Mweene, A., Tsuda, Y., Kishida, N., Bai, G. R., Kameyama, K., Isoda, N., Soda, K., Naito, M. and Kida, H. 2008. Phylogenetic analysis of the M genes of influenza viruses isolated from free-flying water birds from their Northern Territory to Hokkaido, Japan. *Virus Genes*, **37**: 144-152.
- 8) Manzoor, R., Sakoda, Y., Nomura, N., Tsuda, Y., Ozaki, H., Okamoto, M. and Kida, H. 2008. PB2 protein of a highly pathogenic avian influenza virus strain A/chicken/Yamaguchi/7/2004 (H5N1) determines its replication potential in pigs. *J. Virol.*, **83**: 1572-

- 1578.
- 9) Manzoor, R., Sakoda, Y., Sakabe, S., Mochizuki, T., Namba, Y., Tsuda, Y. and Kida, H. 2008. Development of a pen-site test kit for the rapid diagnosis of H7 highly pathogenic avian influenza. *J. Vet. Med. Sci.*, **70**: 557-562.
  - 10) Murakami, S., Iwasa, A., Iwatsuki-Horimoto, K., Ito, M., Kiso, M., Kida, H., Takada, A., Nidom, C. A., Maile, Q., Yamada, S., Imai, H., Sakai-Tagawa, Y., Kawaoka, Y. and Horimoto, T. 2008. Cross-clade protective immunity of H5N1 influenza vaccines in a mouse model. *Vaccine*, **26**: 6398-6404.
  - 11) Nagai, M., Hayashi, M., Itou, M., Fukutomi, T., Akashi, H., Kida, H. and Sakoda, Y. 2008. Identification of new genetic subtypes of bovine viral diarrhea virus genotype 1 isolated in Japan. *Virus Genes*, **36**: 135-139.
  - 12) Okamatsu, M., Sakoda, Y., Kishida, N., Isoda, N. and Kida, H. 2008. Antigenic structure of the hemagglutinin of H9N2 influenza viruses. *Arch. Virol.*, **153**: 2189-2195.
  - 13) Ruggli, N., Summerfield, A., Fiebach, A. R., Guzylack-Pirou, L., Bauhofer, O., Lamm, C. G., Waltersperger, S., Matsuno, K., Liu, L., Gerber, M., Choi, K. H., Hofmann, M. A., Sakoda, Y. and Tratschin, J. D. 2008. Classical swine fever virus can remain virulent after specific elimination of the interferon regulatory factor 3 degrading function of N<sup>pro</sup>. *J. Virol.*, **83**: 817-829.
  - 14) Sakabe, S., Sakoda, Y., Haraguchi, Y., Isoda, N., Soda, K., Takakuwa, H., Saijo, K., Sawata, A., Kume, K., Hagiwara, J., Tuchiya, K., Lin, Z., Sakamoto, R., Imamura, T., Sasaki, T., Kokumai, N., Kawaoka, Y. and Kida, H. 2008. A vaccine prepared from a non-pathogenic H7N7 virus isolated from natural reservoir conferred protective immunity against the challenge with lethal dose of highly pathogenic avian influenza virus in chickens. *Vaccine*, **26**: 2127-2134.
  - 15) Sawai, T., Itoh, Y., Ozaki, H., Isoda, N., Okamoto, K., Kashima, Y., Kawaoka, Y., Takeuchi, Y., Kida, H. and Ogasawara, K. 2008. Induction of cytotoxic T-lymphocyte and antibody responses against highly pathogenic avian influenza virus infection in mice by inoculation of apathogenic H5N1 influenza virus particles inactivated with formalin. *Immunology*, **124**: 155-165.
  - 16) Soda, K., Ozaki, H., Sakoda, Y., Isoda, N., Haraguchi, Y., Sakabe, S., Kuboki, N., Kishida, N., Takada, A. and Kida, H. 2008. Antigenic and genetic analysis of H5 influenza viruses isolated from water birds for the purpose of vaccine use. *Arch. Virol.*, **153**: 2041-2048.
  - 17) Soda, K., Sakoda, Y., Isoda, N., Kajihara, M., Haraguchi, Y., Shibuya, H., Yoshida, H., Sasaki, T., Sakamoto, R., Saijo, K., Hagiwara, J. and Kida, H. 2008. Development of vaccine strains of H5 and H7 influenza viruses. *Jpn. J. Vet. Res.*, **55**: 93-98.
  - 18) Tanaka, T., Tanoue, G., Yamasaki, M., Takashima, I., Sakoda, Y., Ochiai, K. and Umemura, T. 2008. Chemical deicer poisoning was suspected as a cause of the 2005-2006 wintertime mortality of small wild birds in Hokkaido. *J. Vet. Med. Sci.*, **70**: 607-610.
  - 19) Ito, A., Sakoda, Y., Kameyama, K., Yamazaki, Y., Usui, A. and Kida, H. 2008. Evaluation of vaccination program by commercial polyvalent vaccines for bovine viral diarrhea and infectious bovine rhinotracheitis based on neutralizing antibody response. *J. Jpn. Vet. Med. Assoc.*, **61**: 39-42. (in Japanese)

### Publications other than original articles

- 1) Kida, H. 2008. Ecology of Influenza Viruses in Nature, Birds, and Humans. *Global Environ. Res.*, **12**: 9-14.

## Laboratory of Infectious Diseases

### Original articles

- 1) Konnai, S., Mingala, C. N., Sato, M., Abes, N. S., Venturina, F. A., Gutierrez, C. A., Sano, T., Omata, Y., Cruz, L. C., Onuma, M., and Ohashi, K. 2008. A survey of abortifacient infectious agents in livestock in Luzon, the Philippines, with emphasis on the situation in a cattle herd with abortion problems. *Acta Trop.*, **105**: 269-273.
- 2) Odbileg, R., Purevtseren, B., Gantsetseg, D., Boldbaatar, B., Buyannemekh, T., Galmandakh, Z., Erdenebaatar, J., Konnai, S., Onuma, M., and Ohashi, K., 2008. Cytokine responses in camels (*Camelus bactrianus*) vaccinated with *Brucella abortus* strain 19 vaccine. *J. Vet. Med. Sci.*, **70**: 197-201.
- 3) Hatai, H., Ochiai, K., Nagakura, K., Imanishi, S., Ochi, A., Kozakura, R., Ono, M., Goryo, M., Ohashi, K., and Umemura, T. 2008. A recombinant avian leukosis virus associated with fowl glioma in layer chickens in Japan. *Avian Pathol.*, **37**: 127-137.
- 4) Konnai, S., Saito, Y., Nishikado, H., Yamada, S., Imamura, S., Mori, A., Ito, T., Onuma, M., and Ohashi, K. 2008. Establishment of a laboratory colony of taiga tick *Ixodes persulcatus* for tick-borne pathogen transmission studies. *Jpn. J. Vet. Res.*, **55**: 85-92.
- 5) Hatai, H., Ochiai, K., Murakami, M., Imanishi, S., Tomioka, Y., Toyoda, T., Ohashi, K., and Umemura, T. 2008. Prevalence of fowl glioma-inducing virus in chickens of zoological gardens in Japan and nucleotide variation in the *env* gene. *J. Vet. Med. Sci.*, **70**: 469-474.
- 6) Konnai, S., Mekata, H., Odbileg, R., Simuunza, M., Chembensof, M., Witola, W. H., Tembo, M. E., Chitambo, H., Inoue, N., Onuma, M., and Ohashi, K. 2008. Detection of *Trypanosoma brucei* in field-captured Tsetse flies and identification of host species fed on by the infected flies. *Vector Borne Zoonotic Dis.*, **8**: 565-573.
- 7) Imamura, S., Konnai, S., da Silva, V. I. Jr., Yamada, S., Nakajima, C., Ito, Y., Tajima, T., Yasuda, J., Simuunza, M., Onuma, M., and Ohashi, K. 2008. Effects of anti-tick cocktail vaccine against *Rhipicephalus appendiculatus*. *Jpn. J. Vet. Res.*, **56**: 85-98.
- 8) Murao, T., Omata, Y., Kano, R., Murata, S., Okada, T., Konnai, S., Asakawa, M., Ohashi, K., and Onuma, M. 2008. Serological survey of *Toxoplasma gondii* in wild waterfowl in chukotka, Kamchatka, Russia and Hokkaido, Japan. *J. Parasitol.*, **94**: 830-833.
- 9) Yamada, S., Ito, Y., Imamura, S., Konnai, S., Ito, T., Onuma, M., and Ohashi, K. 2008. *Rhipicephalus appendiculatus*: Characterization of a testis-associated protein. *Exp. Parasitol.*, **120**: 337-342.
- 10) Mekata, H., Konnai, S., Simuunza, M., Chembensofu, M., Kano, R., Witola, W. H., Tembo, M. E., Chitambo, H., Inoue, N., Onuma, M., and Ohashi, K. 2008. Prevalence and source of Trypanosome infections in field-captured vector flies (*Glossina pallidipes*) in southeastern Zambia. *J. Vet. Med. Sci.* **70**: 923-928.

## Laboratory of Parasitology

### Original Articles

- 1) Bawm, S., Matsuura, H., Elkhateeb, A., Nabeta, K., Subeki, Nonaka, N., Oku, Y. and Katakura, K. 2008. *In vitro* antitrypanosomal activities of quassinoid compounds from the fruits of a medicinal plant. *Brucea javanica*. *Vet. Parasitol.*, **158**: 288-294.

- 2) Elkhateeb, A., Yamasaki, M., Maede, Y., Katakura, K., Nabeta, K. and Matsuura, H. 2008. Anti-babesial quassionoids from the fruits of *Brucea javanica*. *Nat. Prod. Commun.*, **3**: 145-148.
- 3) Myint, C. K., Asato, Y., Yamamoto, Y., Kato, H., Bhutto, A. M., Soomro, F. R., Memon, M. Z., Matsumoto, J., Maco, J. D., Oshiro, M., Katakura, K., Hashiguchi, Y. and Uezato, H. 2008. Polymorphism of cytochrome *b* gene in *Leishmania* parasites and their relation to types of cutaneous leishmaniasis lesions in Pakistan. *J. Dermatol.*, **35**: 76-85.
- 4) Matsumoto, J., Sakamoto, K., Shinjyo, N., Kido, Y., Yamamoto, N., Yagi, K., Miyoshi, H., Nonaka, N., Katakura, K., Kita, K. and Oku, Y. 2008. Anaerobic NADH-Fumarate reductase system is predominant in the respiratory chain of *Echinococcus multilocularis*, providing a novel target for the chemotherapy of alveolar echinococcosis. *Antimicro. Agents Chemother.*, **52**: 164-170.
- 5) Kato, Y., Kouguchi, H., Matsumoto, J., Goto, A., Suzuki, T., Oku, Y. and Yagi, K. 2008. Characterization of emY162 encoding an immunogenic protein cloned from an adult worm-specific cDNA library of *Echinococcus multilocularis*. *Bioch. Biophys. Acta*, **1780**: 1-6.
- 6) Nonaka, N., Oka, M., Kamiya, M. and Oku Y. 2008. A latex agglutination test for the detection of *Echinococcus multilocularis* copro-antigen in the definitive hosts. *Vet. Parasitol.*, **152**: 278-283.
- 7) Nonaka, N., Hirokawa, H., Inoue, T., Nakao, R., Ganzorig, S., Kobayashi, F., Kamiya, M. and Oku, Y. 2008. A first record of a cat excreting *Echinococcus multilocularis* eggs in Japan. *Parasitol. Int.*, **57**: 519-520.
- 8) Nonaka, N., Kamiya, M., Kobayashi, F., Ganzorig, S., Ando, S., Yagi, K., Iwaki, T., Inoue, T. and Oku, Y. 2008. *Echinococcus multilocularis* infection in pet dogs in Japan. *Vector Borne Zoonotic Dis.*, (In Press).
- 9) Ganzorig, S., Oku, Y., Gardner, S. L. Kamiya M. 2007. Research note: Multiplication of ovaries in *Ctenotaenia marmotae* (Froelich, 1802) (Cestoda: Anoplcephalidae). *Comp. Parasitol.*, **74**: 151-153.
- 10) Tinnin, S. D., Gardner, S. L. and Ganzorig, S. 2008. Helminth of Small Mammals (Chiroptera, Insectivora, Lagomorpha) from Mongolia with a description of a new species of *Schizorchis* (Cestoda: Anoplocephalidae). *Comp. Parasitol.*, **75**: 107-114.
- 11) Lagapa, J. T., Oku, Y. and Kamiya, M. 2008. *Taenia taeniaeformis*: Colonic hyperplasia in heavily infected rats. *Exp. Parasitol.*, **120**: 417-420.
- 12) Lagapa, J. T., Oku, Y. and Kamiya, M. 2008. Immunohistochemical characterization of cellular proliferation in small intestinal hyperplasia of rats with hepatic *Strobilocercus fasciolaris* infection. *J. Comp. Pathol.*, **139**: 34-39.
- 13) Lagapa, J. T., Oku, Y., Nonaka, N. and Kamiya, M. 2008. *Taenia taeniaeformis*: Fate and proliferation of mucosal cells during gastric hyperplasia in larvae infected rats. *Exp. Parasitol.*, **118**: 576-582.

### Publications other than original articles

- 1) Bhutto, A. M., Soomro, F. R. and Katakura, K. 2008. Leishmaniasis in Sindh, Pakistan: outbreak and review of the literature. *J. Pak. Assoc. Dermatol.*, **18**: 212-219.
- 2) Lagapa, J. T., Oku, Y. and Kamiya, M. 2008. Gastroenteropathy in rodents with hepatic *Taenia taeniaeformis* larvae infection: mechanism of pathogenesis. *J. Rakuno Gakuen Univ. Natural Sci.*, **33**: 139-150.



## Laboratory of Laboratory Animal Science and Medicine

### Original articles

- 1) Kariwa, H., Noda, H., Nakauchi, M., Ishizuka, M., Hashiguchi, K., Hashimoto, S., Yoshii, K., Asano, A., Agui, T., Kogaki, H., Kurano, Y., Uchida, Y., Fujii, N., Okada, M. and Takashima, I. 2008. Characterization and epitope mapping of monoclonal antibodies to the nucleocapsid protein of severe acute respiratory syndrome coronavirus. *Jpn. J. Vet. Res.*, **55**: 115-127.
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- 4) Yamaski, M., Hwang, S. J., Ohta, H., Yamato, O., Maede, Y. and Takiguchi, M. Flow cytometry to evaluate the level of *Babesia gibsoni* parasitemia in vivo and in vitro by using the fluorescent nucleic acid stain SYTO16. 2008. *Jpn. J. Vet. Res.*, **55**: 129-136.
- 5) Yamasaki, M., Tajima, M., Yamato, Y., Hwang, S. J., Ohta, H. and Maede, Y. Heat shock response of *Babesia gibsoni* heat shock protein 70. 2008. *J. Parasitol.*, **94**: 119-124.

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- 2) Ohta, H., Yamasaki, M. and Takiguchi, M. 2008. Inflammatory bowel disease in dogs. *J.*

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## Laboratory of Veterinary Surgery

### Original articles

- 1) Hoshino, Y., Tajima, M., Takagi, S., Osaki, T., Okumura, M. and Fujinaga, T. 2008. Relative quantification of canine CD56 mRNA expression by real-time polymerase chain reaction in normal tissues and activated lymphocytes. *J. Vet. Med. Sci.*, **70**: 309-312.
- 2) Hoshino, Y., Takagi, S., Osaki, T., Okumura, M. and Fujinaga, T. 2008. Phenotypic analysis and effects of sequential administration of activated canine lymphocytes on healthy beagles. *J. Vet. Med. Sci.*, **70**: 581-588.

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- 3) Okumura, M. 2008. Protocol for examination of synovial fluid and arthroscopy; Advances in arthroscopy in canine joint disorders. *Companion Anim. Pract.*, **23**: 18-26. (in Japanese)
- 4) Hoshino, Y., Takagi, S., Osaki, T., Okumura, M. and Fujinaga, T. 2008. Cancer immunotherapy in dogs: canine activated lymphocyte therapy. *J. Hokkaido Vet. Med. Assoc.*, **52**: 212-218. (in Japanese)
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- 11) Okumura, M. 2008. How to diagnose and understand Legg-Calve-Perthes diseases in dogs. *InfoVets*, **11**: 32-37. (in Japanese)
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- 13) Okumura, M. 2008. Synovial fluid pp. 243, Ankylosis of joints pp. 244, Joint cartilage pp. 245, Osteoarthropathy pp. 455, Epiphysis pp. 455, Osteochondrosis pp. 461, Knee osteoarthritis pp. 551, Fibrous osteodystrophy pp. 745, Cartilage flap pp. 974, Temporary callus pp. 974, Osteoarthritis pp. 1218, Chronic serious arthritis pp. 1271. *In: New veterinary*

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## Laboratory of Comparative Pathology

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## Laboratory of Theriogenology

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- 2) Hufana-Duran, D., Pedro, P. B., Salazar, A. L. Jr., VEnturina, H. V., Duran, P. G., Takahashi, Y., Kanai, Y. and Cruz, L. C. 2008. Twin calf production in water buffaloes following non-surgical transfer of in-vitro-produced vitrified embryos. *Philippine J. Sci.*, **137**: 99-104.
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## Laboratory of Public Health

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- 3) Abu Daude, N. H., Kariwa, H., Tkachenko, E., Dzagurnova, T., Medvedkina, O., Tkachenko, P., Ishizuka, M., Seto, T., Miyashita, D., Sanada, T., Nakauchi, M., Yoshii, K., Maeda, A., Yoshimatsu, K., Arikawa, J., and Takashima, I. 2008. Genetic and antigenic analyses of a Puumala virus isolate as a potential vaccine strain. *Jpn. J. Vet. Res.*, **56**: 151-165.
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## Laboratory of Radiation Biology

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- 1) Ogura, A., Watanabe, Y., Iizuka, D., Yasui, H., Amitani, M., Kobayashi, S., Kuwabara, M., and Inanami, O. 2008. Radiation-induced apoptosis of tumor cells is facilitated by inhibition of the interaction between Survivin and Smac/DIABLO. *Cancer Lett.*, **259**: 71-81.
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- 3) Asanuma, T., Yasui, H., Sato, M., Inanami, O. and Kuwabara, M. 2008. A BOLD-fMRI study of cerebral activation induced by injection of algescic chemical substances into the anesthetized rat forepaw. *Jpn. J. Vet. Res.*, **56**: 99-107.
- 4) Kuwabara, M., Asanuma, T., Niwa, K. and Inanami, O. 2008. Regulation of cell survival and death signals induced by oxidative stress. *J. Clin. Biochem. Nutr.*, **43**: 51-57.
- 5) Chiang, Y. W., Otoshima, Y., Watanabe, Y., Inanami, O., Shimoyama, Y. 2008. Dynamics and local ordering of spin-labeled prion protein: an ESR simulation study of a highly pH-sensitive site. *J. Biomol. Struct. Dyn.*, **26**: 355-366.
- 6) Asanuma, T., Doblas, S., Tesiram, Y. A., Saunders, D., Cranford, R., Yasui, H., Inanami, O., Smith, N., Floyd, R. A., Kotake, Y. and Towner, R. A. 2008. Visualization of the protective ability of a free radical trapping compound against rat C6 and F98 gliomas with diffusion tensor fiber tractography. *J. Magn. Reson. Imaging.*, **28**: 574-587.
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- encephalopathy-related prion mutants. *Biochem. Biophys. Res. Commun.*, **366**: 244-249.
- 15) Kosugi, T., Kawahara, K., Tanaka, M., Watanabe, Y. and Inanami, O. 2008. Neuron is

the primary target of  $\text{Ca}^{2+}$  paradox-type insult-induced cell injury in neuron/astrocyte co-cultures. *Neurochem. Int.*, **52**: 887-896.

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- 1) Kuwabara, M. 2008. Spin trapping (2), *Spin Science*, **10**: 55-60. (in Japanese)
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## Laboratory of Toxicology

### Original articles

- 1) Ishizuka, M., Fujioka, K. and Shibamoto, T. 2008. Analysis of acrylamide in a complex matrix of polyacrylamide solutions treated by heat and ultraviolet light. *J. Agric. Food Chem.*, **56**: 6093-6096.
- 2) Refat, N. A., Ibrahim, Z. S., Moustafa, G. G., Sakamoto, K. Q., Ishizuka, M. and Fujita, S. 2008. The induction of cytochrome P450 1A1 by sudan dyes. *J. Biochem. Mol. Toxicol.*, **22**: 77-84.
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- 4) Moustafa, G. G., Ibrahim, Z. S., Ahmed, M. M., Ghoneim, M. H., Sakamoto, K. Q., Ishizuka, M. and Fujita, S. 2008. Downregulation of male-specific cytochrome P450 by

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- 7) Sasaki, S., Sata, F., Katoh, S., Saijo, Y., Nakajima, S., Washino, N., Konishi, K., Ban, S., Ishizuka, M. and Kishi, R. 2008. Adverse birth outcomes associated with maternal smoking and polymorphisms in the N-Nitrosamine-metabolizing enzyme genes NQO1 and CYP2E1. *Am. J. Epidemiol.*, **167**: 719-726.

## Laboratory of Wildlife Biology

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Tanabe, S. 2008. Regional trend and tissue distribution of brominated flame retardants and persistent organochlorines in raccoon

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- 2) Nakamura, S., Okano, T., Yoshida, Y., Matsumoto, A., Murase, Y., Kato, H., Komatsu, T., Asano, M., Suzuki, M., Sugiyama, M. and Tsubota, T. 2008. Use of bioelectrical impedance analysis to measure the fat mass of the Japanese black bear (*Ursus thibetanus japonicus*). *Jpn. J. Zoo Wildl. Med.*, **13**: 15–20.
  - 3) Nakamura, S., Okano, T., Shibata, H., Saito, M., Komatsu, T., Asano, M., Sugiyama, M., Tsubota, T. and Suzuki, M. 2008. Relationships among changes of serum leptin concentration, leptin mRNA expression in white adipose tissue (WAT), and WAT fat-cell size in female Japanese black bears (*Ursus thibetanus japonicus*). *Can. J. Zool.*, **86**: 1042–1049.
  - 4) Kubo, M., Uni, S., Agatsuma, T., Nagataki, M., Panciera, R. J., Tsubota, T., Nakamura, S., Sakai, H., Masegi, T. and Yanai, T. 2008. *Hepatozoon ursi* n. sp. (Apicomplexa: Hepat-
  - ozoidae) in Japanese black bear (*Ursus thibetanus japonicus*). *Parasitol. Int.*, **57**: 287–294.
  - 5) Tsubota, T., Sato, M., Okano, T., Nakamura, S., Asano, M., Komatsu, T., Shibata, H. and Saito, M. 2008. Annual changes in serum leptin concentrations in the adult female Japanese black bear (*Ursus thibetanus japonicus*). *J. Vet. Med. Sci.*, **70**: 1399–1403.
  - 6) Yanagawa, Y., Matsuura, Y., Suzuki, M., Katagiri, S. & Tsubota, T. 2008. Immunohistochemical localization of the estrogen receptor alpha (ER $\alpha$ ) and progesterone receptor (PR) in the uterus of sika deer (*Cervus nippon*) during pregnancy. *Jpn. J. Vet. Res.*, **56**: 139–149.
  - 7) Yanagawa, Y., Matsuura, Y., Suzuki, M., Saga, S., Okuyama, H., Fukui, D., Bandou, G., Katagiri, S., Takahashi, Y. and Tsubota, T. Fetal age estimation of Hokkaido sika deer (*Cervus nippon yesoensis*) using ultrasonography during early pregnancy. *J. Reprod. Dev.*, (In press).

## Laboratory of Prion Diseases

### Original articles

- 1) Watanabe, Y., Hiraoka, W., Shimoyama, Y., Horiuchi, M. and Kuwabara, M. 2008. Instability of familial spongiform encephalopathy-related prion mutants. *Biochem. Biophys. Res. Commun.*, **366**: 244–249.
- 2) Song, C.-H., Furuoka, H., Kim, C.-L., Ogino, M., Suzuki, A., Hasebe, R. and Horiuchi, M. 2008. Effect of intraventricular infusion of anti-prion protein monoclonal antibodies on disease progression in prion-infected mice. *J. Gen. Virol.*, **89**: 1533–1544.
- 3) Muramatsu, Y., Sakemi, Y., Horiuchi, M., Ogawa, T., Suzuki, K., Kanameda, M., Tran Thi Hanh, T. T. and Tamura, Y. 2008. Frequencies of PRNP gene polymorphisms in Vietnamese dairy cattle for potential association with BSE. *Zoonoses Public Health*, **55**: 267–273.
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- 6) Maeda, A., Maeda, J., Takagi, H. and Kurane, I. 2008. Detection of small RNAs containing the 5'- and the 3'-end sequences of viral genome during West Nile virus replication. *Virology*, **371**: 130–138.

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### **Publications other than original articles**

- 1) Horiuchi, M. 2008. Propagation of prion and its inhibition. *Virus Infection Seminar*, **10**: 13-25. (in Japanese)
- 2) Hasebe, R. 2008. ABC for prion diseases. *Small Animal Clinic*, **152**: 4-9. (in Japanese)

## **Veterinary Teaching Hospital**

### **Original Articles**

- 1) Yamasaki, M., Tajima, M., Yamato, O. Hwang S.-J., Ohta, H. and Maede, Y. 2008. Heat shock response of *Babesia gibsoni* heat shock protein 70. *J. Parasitol.*, **94**: 119-124.
- 2) Hoshino, Y., Tajima, M., Takagi, S., Osaki, T., Okumura, M. and Fujinaga, T. 2008. Relative quantification of canine CD56 mRNA expression by real-time polymerase chain reaction method in normal tissues and activated lymphocytes. *J. Vet. Med. Sci.*, **70**: 309-312.
- 3) Tajima, M., Ohsaki, T., Okazawa, M. and Yasutomi, I. 2008. Availability of oral swab sample for the detection of bovine viral diarrhoea virus (BVDV) gene from the cattle persistently infected with BVDV. *Jpn. J. Vet. Res.*, **56**: 3-8.
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