



Title	INFORMATION: Publications by the staff of the Graduate School of Veterinary Medicine
Citation	Japanese Journal of Veterinary Research, 61(1&2), 75-96
Issue Date	2013-05
Doc URL	<a href="http://hdl.handle.net/2115/52831">http://hdl.handle.net/2115/52831</a>
Type	bulletin (other)
File Information	61-1&2-Graduate school.pdf



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

### Laboratory of Anatomy

#### Original articles

- 1) Nishino, T., Sasaki, N., Nagasaki, K., Ichii, O., Kon, Y. and Agui, T. 2012. The 129 genetic background affects susceptibility to glomerulosclerosis in tensin2-deficient mice. *Biomed. Res.*, **33**: 53–56.
- 2) Nishino, T., Sasaki, N., Chihara, M., Nagasaki, K., Torigoe, D., Kon, Y. and Agui, T. 2012. Distinct distribution of the tensin family in the mouse kidney and small intestine. *Exp. Anim.*, **61**: 525–532.
- 3) Otsuka, S., Ichii, O., Namiki, Y., Sasaki, N., Hashimoto, Y. and Kon, Y. 2012. Genomic analysis of the appearance of testicular oocytes in MRL/MpJ mice. *Mamm. Genome*, **23**: 741–748.
- 4) Matsuyama-Kato, A., Murata, S., Isezaki, M., Kano, R., Takasaki, S., Ichii, O., Konnai, S. and Ohashi, K. 2012. Molecular characterization of immunoinhibitory factors PD-1/PD-L1 in chickens infected with Marek's disease virus. *Virol. J.*, **9**: 94. (doi: 10.1186/1743-422X-9-94)
- 5) Naganuma, Y., Ichii, O., Otsuka, S., Hashimoto, Y. and Kon, Y. 2012. Analysis of TdT-mediated dUTP nick end labeling (TUNEL)-positive cells associated with cardiac myogenesis in mouse embryo. *J. Vet. Med. Sci.*, (Epub ahead of print). (doi: org/10.1292/jvms.12-0339)
- 6) Yoshii, K., Igarashi, M., Ichii, O., Yokozawa, K., Ito, K., Kariwa, H. and Takashima, I. 2012. A conserved region in the prM protein is a critical determinant in the assembly of flavivirus particles. *J. Gen. Virol.*, **93**: 27–38.

#### Publications other than original articles

- 1) Ichii, O. 2012. Veterinary Anatomy, Chapter 10, Urinary organ. In: Veterinary Anatomy Histology Embryology, 1th ed., pp.129–138, (Japanese Association of Veterinary Anatomists ed.), Gakusisha, Tokyo. (in Japanese).
- 2) Otsuka, S. 2012. Veterinary Histology, Chapter 12, Urinary organ. In: Veterinary Anatomy Histology Embryology, 1th ed., pp.401–412, (Japanese Association of Veterinary Anatomists ed.), Gakusisha, Tokyo. (in Japanese).

### Laboratory of Physiology

#### Original articles

- 1) Yano, S., Sakamoto, K. Q. and Habara, Y. 2012. Estrus cycle-related preference of BALB/c female mice for C57BL/6 males is induced by estrogen. *J. Vet. Med. Sci.*, **10**: 1311–1314.
- 2) Fuse Y. K., Sakamoto, K. Q., Sato, K. and Habara, Y. 2012. Cardiorespiratory pattern of rest-associated apnea in a Weddell seal: a case study at an ice hole in Antarctica. *Polar Biol.*, **35**: 969–972.
- 3) Crossin, G. T., Trathan, P. N., Phillips, R. A., Gorman, K. B., Dawson, A., Sakamoto, K. Q. and Williams, T. D. 2012. Corticosterone predicts foraging behavior and parental care in macaroni penguins. *Am. Nat.*, **180**: E31–41.

- 4) Iwata, T., Sakamoto, K. Q., Takahashi, A., Edwards, E. W. J., Staniland, I. J., Trathan, P. N. and Naito, Y. 2012. Using a mandible

accelerometer to study fine-scale foraging behavior of free-ranging Antarctic fur seals. *Mar. Mammal Sci.*, **28**: 345–357.

### Publication other than original articles

- 1) Sakamoto, K. Q. and Watanabe, S. 2012. Animal behaviour study with accelerometer.

*Milsil*, **5**: 14–16. (in Japanese).

## Laboratory of Biochemistry

### Original articles

- 1) Shimada, K., Ohno, Y., Okamatsu-Ogura, Y., Suzuki, M., Kamikawa, A., Terao, A. and Kimura, K. 2012. Neuropeptide Y activates phosphorylation of ERK and STAT3 in stromal vascular cells from brown adipose tissue, but fails to affect thermogenic function of brown adipocytes. *Peptides*, **34**: 336–342.
- 2) Ishii, T., Fukano, K., Shimada, K., Kamikawa, A., Okamatsu-Ogura, Y., Terao, A., Yoshida, T., Saito, M. and Kimura, K. 2012. Proinsulin C-peptide activates  $\alpha$ -enolase activity:

Implications for C-peptide—cell membrane interaction. *J. Biochem.*, **152**: 53–62. (doi: 10.1093/jb/mvs052)

- 3) Watanabe, A., Hirota, J., Shimizu, S., Inumaru, S. and Kimura, K. 2012. Single intramammary infusion of recombinant bovine interleukin-8 at dry-off induces the prolonged secretion of leukocyte elastase, inflammatory lactoferrin-derived peptides, and interleukin-8 in dairy cows. *Vet. Med. Int.*, (doi: 10.1155/2012/172072)

## Laboratory of Pharmacology

### Original article

- 1) Kawamoto, K., Otsuguro, K., Ishizuka, M. and Ito, S. 2012. Inhibitory effects of dopamine on spinal synaptic transmission

via dopamine D1-like receptors in neonatal rats. *Br. J. Pharmacol.*, **166**: 788–800.

### Publication other than original article

- 1) Ito, S. 2012. Cooperative veterinary Educations with Hokkaido University and Obihiro University of Agriculture and Veterinary

Medicine. *J. Jpn. Vet. Med. Assoc.*, **65**: 245–248. (in Japanese).

## Laboratory of Microbiology

### Original articles

- 1) Nomura, N., Sakoda, Y., Endo, M., Yoshida, H., Yamamoto, N., Okamatsu, M., Sakurai, K.,

Hoang, N. V., Nguyen, L. V., Chu, H. D., Tien, T. N. and Kida, H. 2012. Characterization

- of avian influenza viruses isolated from domestic ducks in Vietnam in 2009 and 2010. *Arch. Virol.*, **157**: 247–257.
- 2) Nomura, N., Sakoda, Y., Soda, K., Okamatsu, M. and Kida, H. 2012. An H9N2 influenza virus vaccine prepared from a non-pathogenic isolate from a migratory duck confers protective immunity in mice against challenge with an H9N2 virus isolated from a girl in Hong Kong. *J. Vet. Med. Sci.*, **74**: 441–447.
  - 3) Sakoda, Y., Ito, H., Uchida, Y., Okamatsu, M., Yamamoto, N., Soda, K., Nomura, N., Kuribayashi, S., Shichinohe, S., Sunden, Y., Umemura, T., Usui, T., Ozaki, H., Yamaguchi, T., Murase, T., Ito, T., Saito, T., Takada, A. and Kida, H. 2012. Reintroduction of H5N1 highly pathogenic avian influenza virus by migratory water birds, causing poultry outbreaks in 2010–2011 winter season in Japan. *J. Gen. Virol.*, **93**: 541–550.
  - 4) Liniger, M., Moulin, H. R., Sakoda, Y., Ruggli, N. and Summerfield, A. 2012. Highly pathogenic avian influenza virus H5N1 controls type I IFN induction in chicken macrophage HD-11 cells: a polygenic trait that involves NS1 and the polymerase complex. *Virol. J.*, **9**: 7.
  - 5) Arikata, M., Itoh, Y., Okamatsu, M., Maeda, T., Shiina, T., Tanaka, K., Suzuki, S., Nakayama, M., Sakoda, Y., Ishigaki, H., Takada, A., Ishida, H., Soda, K., Pham, V. L., Tsuchiya, H., Nakamura, S., Torii, R., Shimizu, T., Inoko, H., Ohkubo, I., Kida, H. and Ogasawara, K. 2012. Memory Immune Responses against Pandemic (H1N1) 2009 Influenza Virus Induced by a Whole Particle Vaccine in Cynomolgus Monkeys Carrying Mafa-A1<sup>\*</sup>052ratio02. *PLoS ONE*, **7**: e37220.
  - 6) Sakoda, Y., Okamatsu, M., Isoda, N., Yamamoto, N., Ozaki, K., Umeda, Y., Aoyama, S. and Kida, H. 2012. Purification of human and avian influenza viruses using cellulose sulfate ester (Cellufine Sulfate) in the process of vaccine production. *Microbiol. Immunol.*, **56**: 490–495.
  - 7) Sakoda, Y., Naito, M., Ito, M., Ito, Y., Isoda, N., Tanaka, T., Umemura, T. and Kida, H. 2012. Recovery of leptospires from miniature pigs experimentally infected with *Leptospira interrogans* serovar *Manilae* strain UP-MMC under immunosuppressive conditions by dexamethasone. *J. Vet. Med. Sci.*, **74**: 955–958.
  - 8) Tamura, T., Sakoda, Y., Yoshino, F., Nomura, T., Yamamoto, N., Sato, Y., Okamatsu, M., Ruggli, N. and Kida, H. 2012. Selection of classical swine fever virus with enhanced pathogenicity reveals synergistic virulence determinants in E2 and NS4B. *J. Virol.*, **86**: 8602–8613.
  - 9) Isoda, N., Tsuda, Y., Asakura, S., Okamatsu, M., Sakoda, Y. and Kida, H. 2012. The nucleoprotein is responsible for intracerebral pathogenicity of A/duck/Mongolia/47/2001 (H7N1) in chicks. *Arch. Virol.*, **12**: 2257–2264.
  - 10) Sakoda, Y., Wakamoto, H., Tamura, T., Nomura, T., Naito, M., Aoki, H., Morita, H., Kida, H. and Fukusho, A. 2012. Development and evaluation of indirect enzyme-linked immunosorbent assay for a screening test to detect antibodies against classical swine fever virus. *Jpn. J. Vet. Res.*, **60**: 85–94.
  - 11) Yamada, S., Shinya, K., Takada, A., Ito, T., Suzuki, T., Suzuki, Y., Le, Q. M., Ebina, M., Kasai, N., Kida, H., Horimoto, T., Rivailleur, P., Chen, L. M., Donis, R. O. and Kawaoka, Y. 2012. Adaptation of a duck influenza A virus in quail. *J. Virol.*, **86**: 1411–1420.
  - 12) Sato, K., Iwai, A., Nakayama, Y., Morimoto, J., Takada, A., Maruyama, M., Kida, H., Uede, T. and Miyazaki, T. 2012. Osteopontin is critical to determine symptom severity of influenza through the regulation of NK cell population. *Biochem. Biophys. Res. Communum.*, **417**: 274–279.
  - 13) Sakoda, Y., Endo, M., Sato, Y., Okamatsu, M. and Kida, H. 2012. Effects of disinfectant containing glutaraldehyde against avian influenza virus. *J. Jpn. Vet. Med. Assoc.*, **65**:

303–305. (in Japanese).

## Publications other than original articles

- 1) Kida, H., Shichinohe, S. 2012. Review of swine influenza. *Youton no Tomo*, **515**: 14–16. (in Japanese).
- 2) Kida, H. 2012. Can H5N1 highly pathogenic avian influenza viruses cause pandemic influenza? *Influenza*. **13**: 32–33. (in Japanese).
- 3) Kida, H. 2012. Future of highly pathogenic avian influenza. *Up-to-date knowledge of influenza Q & A 2012*: 180–183. (in Japanese).
- 4) Kida, H. 2012. Influenza is a zoonosis. *Clinical Microbiology*. **39**: 267–273. (in Japanese).
- 5) Yamamoto, N., Sakoda, Y. 2012. Genetic and antigenic characterization of H5N1 influenza viruses isolated in 2010–2011 winter season in Japan. *Journal of Veterinary Medicine*, **65**: 901–905. (in Japanese).

## Laboratory of Infectious Diseases

### Original articles

- 1) Githaka, N., Konnai, S., Kariuki, E., Kanduma, E., Murata, S. and Ohashi, K. 2012. Molecular detection of new *Babesia* and *Theileria* species/variants in wild felids from Kenya. *Acta Tropica*, **124**: 71–78.
- 2) Suzuki, S., Konnai, S., Okagawa, T., Githaka, N., Kariuki, E., Gakuya, F., Kanduma, E., Shirai, T., Ikebuchi, R., Ikenaka, Y., Ishizuka, M., Murata, S. and Ohashi, K. 2012. Molecular cloning and characterization of Th1 and Th2 cytokines of African buffalo (*Syncerus caffer*). *Int. J. Immunogenet.*, **39**: 170–182.
- 3) Takano, A., Sugimori, C., Fujita, H., Kadosaka, T., Taylor, K. R., Tsubota, T., Konnai, S., Tajima, T., Sato, K., Watanabe, H., Ohnishi, M. and Kawabata, H. 2012. A novel relapsing fever *Borrelia* sp. infects the salivary glands of the molted hard tick, *Amblyomma geoemydae*. *Ticks Tick Borne Dis.*, **3**: 259–261.
- 4) Matsuyama-Kato, A., Murata, S., Isezaki, M., Kano, R., Takasaki, S., Ichii, O., Konnai, S. and Ohashi, K. 2012. Molecular characterization of immunoinhibitory factors PD-1/PD-L1 in chickens infected with Marek's disease virus. *Virol. J.*, **9**: 94.
- 5) Okagawa, T., Konnai, S., Mekata, H., Githaka, N., Suzuki, S., Kariuki, E., Gakuya, F., Kanduma, E., Shirai, T., Ikebuchi, R., Ikenaka, Y., Ishizuka, M., Murata, S. and Ohashi, K. 2012. Transcriptional profiling of inflammatory cytokine genes in *Theileria parva*-infected African buffalo (*Syncerus caffer*). *Vet. Immunol. Immunopathol.*, **148**: 373–279.
- 6) Kohara, J., Nishikura, Y., Konnai, S., Tajima, M. and Onuma, M. 2012. Effects of interferon tau on cattle persistently infected with bovine viral diarrhea virus. *Jpn. J. Vet. Res.*, **60**: 63–70.
- 7) Okagawa, T., Konnai, S., Ikebuchi, R., Suzuki, S., Shirai, T., Sunden, Y., Onuma M., Murata, S. and Ohashi, K. 2012. Increased bovine Tim-3 and its ligand expressions during bovine leukemia virus infection. *Vet. Res.*, **43**: 45.
- 8) Konnai, S., Yamada, S., Imamura, S., Nishikado, H., Githaka, W. N., Ito, T., Takano, A., Kawabata, H., Murata, S. and Ohashi, K. 2012. Identification of TROSPA homologue in *Ixodes persulcatus*, Schulze, the specific vector for human Lyme borreliosis in Japan. *Ticks Tick Borne Dis.*, **3**: 75–77.
- 9) Ikenaka, Y., Nakayama, S. M., Muroya, T., Yabe, J., Konnai, S., Darwish, W. S.,

- Muzandu, K., Choongo, K., Mainda, G., Teraoka, H., Umemura, T. and Ishizuka, M. 2012. Effects of environmental lead contamination on cattle in a lead/zinc mining area: Changes in cattle immune systems on exposure to lead *in vivo* and *in vitro*. *Environ. Toxicol. Chem.*, **31**: 2300–2305.
- 10) Mekata, H., Konnai, S., Mingala, C. N., Abes, N. S., Gutierrez, A., Dargantes, A. P., Witola, W. H., Inoue, N., Onuma, M., Murata, S. and Ohashi, K. 2012. Kinetics of regulatory dendritic cells in inflammatory responses during *Trypanosoma evansi* infection. *Parasite Immunol.*, **34**: 318–329.
- 11) Parizi, L. F., Githaka, N. W., Logullo, C., Konnai, S., Masuda, A., Ohashi, K. and da Silva, Vaz, Jr. I. 2012. The quest for a universal vaccine against ticks: Cross-immunity insights. *Vet. J.*, **194**: 158–165.

### Publications other than original articles

- 1) Ohashi, K., Murata, S. and Konnai, S. 2012. Basic immunology of infectious diseases (What's immunology). *Journal of Clinical Veterinary Medicine*, **8**: 60–62. (in Japanese).
- 2) Murata, S., Konnai, S. and Ohashi, K. 2012. Basic immunology of infectious diseases (Humoral immunity). *Journal of Clinical Veterinary Medicine*, **9**: 60–62. (in Japanese).
- 3) Konnai, S., Murata, S. and Ohashi, K. 2012. Basic immunology of infectious diseases (Cellular immunity). *Journal of Clinical Veterinary Medicine*, **10**: 42–44. (in Japanese).
- 4) Ohashi, K., Murata, S. and Konnai, S. 2012. Basic immunology of infectious diseases (Recent topics in veterinary immunology). *Journal of Clinical Veterinary Medicine*, **11**: 50–52. (in Japanese).
- 5) Konnai, S. 2012. Control strategies of bovine leukemia. *Journal of Clinical Veterinary Medicine*, **6**: 44–49. (in Japanese).
- 6) Konnai, S., Murata, S. and Ohashi, K. 2012. Increasing bovine leukemia and its control measures in Hokkaido. *J. Hokkaido Vet. Med. Assoc.*, **56**: 1–7. (in Japanese).
- 7) Konnai, S. 2012. Control measures of bovine leukemia virus infection in large dairy herd. *Dairy journal*, **4**: 15–18. (in Japanese).

## Laboratory of Parasitology

### Original articles

- 1) Tiwananthagorn, S., Iwabuchi, K., Ato, M., Sakurai, T., Kato, H. and Katakura, K. 2012. Involvement of CD4<sup>+</sup> Foxp3<sup>+</sup> regulatory T cells in persistence of *Leishmania donovani* in the liver of alymphoplastic aly/aly mice. *PLoS. Negl. Trop. Dis.*, **6**: e1798.
- 2) Ishimaru, Y., Gomez, E. A., Zhang, F., Martini-Robles, L., Iwata, H., Sakurai, T., Katakura, K., Hashiguchi, Y. and Kato, H. 2012. Dimiconin, a novel coagulation inhibitor from the kissing bug, *Triatoma dimidiata*, a vector of Chagas disease. *J. Exp. Biol.*, **215**: 3597–3602.
- 3) Alam, M. S., Kato, H., Fukushige, M., Wagatsuma, Y. and Itoh, M. 2012. Application of RFLP-PCR based identification for sand fly surveillance in an area endemic for kala-azar in Mymensingh, Bangladesh. *J. Parasitol. Res.*, **2012**: 467821.
- 4) Fujita, M., Kato, H., Cáceres, A. G., Gomez, E. A., Velez, L., Mimori, T., Zhang, F., Iwata, H., Korenaga, M., Sakurai, T., Katakura, K. and Hashiguchi, Y. 2012. Genotyping of sand fly species in Peruvian Andes where leishmaniasis is endemic. *Acta Trop.*, **121**: 93–98.
- 5) Nyunt, K. S., Elkateeb, A., Tosa, Y., Nabeta, K., Katakura, K. and Matsuura, H. 2012.

- Isolation of antitrypanosomal compounds from *Vitis repens*, a medicinal plant of Myanmar. *Nat. Prod. Commun.*, **7**: 609–610.
- 6) Elkhateeb, A., Tosa, Y., Matsuura, H., Nabeta, K. and Katakura, K. 2012. Antitrypanosomal activities of acetylated bruceines A and C; a structure-activity relationship study. *J. Nat. Med.*, **66**: 233–240.
  - 7) Tiwananthagorn, S., Bhutto, A. M., Baloch, J. H., Soomro, F. R., Kawamura, Y., Nakao, R., Aoshima, K., Nonaka, N., Oku, Y. and Katakura, K. 2012. Zoophilic feeding behaviour of phlebotomine sand flies in the endemic areas of cutaneous leishmaniasis of Sindh Province, Pakistan. *Parasitol. Res.*, **111**: 125–133.
  - 8) Doi, J., Hirota, J., Morita, A., Fukushima, K., Kamijyo, H., Ohta, H., Yamasaki, M., Takahashi, T., Katakura, K. and Oku, Y. 2012. Intestinal *Tritrichomonas suis* (= *T. foetus*) infection in Japanese cats. *J. Vet. Med. Sci.*, **74**: 413–417.

### Publications other than original articles

- 1) Mimori, T., Aso, T., Kato, H., Gomez, E. A. and Hashiguchi, Y. 2012. Material collection methods, using skin biopsy punch, syringe, cotton swab and FTA card from lesions of cutaneous of leishmaniasis patients. Materials and Methods in Parasitology, p25–28. (in Japanese).
- 2) Kato, H., Gomez, E. A., Cáceres, A. G. and Hashiguchi, Y. 2012. Natural infections of man-biting sand flies by *Leishmania* and *Trypanosoma* species in the northern Peruvian Andes. *Jpn. J. Vet. Parasitol.*, **10**: 51.

## Laboratory of Laboratory Animal Science and Medicine

### Original articles

- 1) Dang, R., Sasaki, N., Torigoe, D. and Agui, T. 2012. Anatomic modifications in the enteric nervous system of JF1 mice with the classic piebald mutation. *J. Vet. Med. Sci.*, **74**: 391–394.
- 2) Nishino, T., Sasaki, N., Nagasaki, K., Ichii, O., Kon, Y. and Agui, T. 2012. The 129 genetic background affects susceptibility to glomerulosclerosis in tensin2-deficient mice. *Biomed. Res.*, **33**: 53–56.
- 3) Hosoda, Y., Sasaki, N., Kameda, Y., Torigoe, D. and Agui, T. 2012. Identifying quantitative trait loci affecting resistance to congenital hypothyroidism in 129<sup>+Ter</sup>/SvJcl strain mice. *PLoS ONE* **7**: e31035.
- 4) Nishino, T., Sasaki, N., Chihara, M., Nagasaki, K., Torigoe, D., Kon, Y. and Agui, T. 2012. Distinct distribution of the tensin family in the mouse kidney and small intestine. *Exp. Anim.*, **61**: 525–532.
- 5) Dang, R., Sasaki, N., Nishino, T., Nakanishi, M., Torigoe, D. and Agui, T. 2012. Lymphopenia in *Ednrb*-deficient rat was strongly modified by genetic background. *Biomed. Res.*, **33**: 249–253.
- 6) Tag-El-Din-Hassan, H. T., Sasaki, N., Moritoh, K., Torigoe, D., Maeda, A. and Agui, T. 2012. The chicken 2'-5' oligoadenylate synthetase A inhibits the replication of West Nile Virus. *Jpn. J. Vet. Res.*, **60**: 95–103.

## Laboratory of Veterinary Internal Medicine

### Original articles

- 1) Wickramasekara Rajapakshage, B. K., Yamasaki, M., Hwang, S. J., Sasaki, N.,

- Murakami, M., Tamura, Y., Lim, S. Y., Nakamura, K., Ohta, H. and Takiguchi, M. 2012. Involvement of mitochondrial genes of Babesia gibsoni in resistance to diminazene aceturate. *J. Vet. Med. Sci.*, **74**: 1139–1148.
- 2) Wickramasekara Rajapakshage, B. K., Yamasaki, M., Murakami, M., Tamura, Y., Lim, S. Y., Osuga, T., Sasaki, N., Nakamura, K., Ohta, H. and Takiguchi, M. 2012. Analysis of energy generation and glycolysis pathway in diminazene aceturate-resistant Babesia gibsoni isolate in vitro. *Jpn. J. Vet. Res.*, **60**: 51–61.
- 3) Sasaki, N., Kudo, N., Nakamura, K., Lim, S. Y., Murakami, M., Bandula Kumara, W. R., Tamura, Y., Ohta, H., Yamasaki, M. and Takiguchi, M. 2012. Activation of microbubbles by short-pulsed ultrasound enhances the cytotoxic effect of cis-diamminedichloroplatinum (II) in a canine thyroid adenocarcinoma cell line *in vitro*. *Ultrasound Med. Biol.*, **38**: 109–118.
- 4) Nakamura, K., Yamasaki, M., Osaki, T., Sasaki, N., Aoshima, K., Kimura, T. and Takiguchi, M. 2012. Bilateral segmental aplasia with unilateral uterine horn torsion in a Pomeranian bitch. *J. Am. Anim. Hosp. Assoc.*, **48**: 327–330.
- 5) Murakami, M., Zhao, S., Zhao, Y., Chowdhury, N.F., Yu, W., Nishijima, K., Takiguchi, M., Tamaki, N. and Kuge, Y. 2012. Evaluation of changes in the tumor microenvironment after sorafenib therapy by sequential histology and 18F-fluoromisonidazole hypoxia imaging in renal cell carcinoma. *Int. J. Oncol.*, **41**: 1593–1600.

## Publications other than original articles

- 1) Takiguchi, M. 2012. Upskillig for Ultrasonographic interpretation. Adrenal glands. *SA Medicine* **14**: 68–73.
- 2) Takiguchi, M. 2012. Upskillig for Ultrasonographic interpretation. Thyloid and Parathyroid glands. *SA Medicine* **14**: 81–87.

## Laboratory of Veterinary Surgery

### Original articles

- 1) Osaki, T., Takagi, S., Hoshino, Y., Aoki, Y., Sunden, Y., Ochiai, K. and Okumura, M. 2012. Temporary regression of locally invasive polypoid rhinosinusitis in a dog after photodynamic therapy. *Aust. Vet. J.*, **90**: 442–447.
- 2) Edamura, K., King, J. N., Seewald, W., Sakakibara, N. and Okumura, M. 2012. Comparison of oral robenacoxib and carprofen for the treatment of osteoarthritis in dogs: a randomized clinical trial. *J. Vet. Med. Sci.*, **74**: 1121–1131.
- 3) Sano, T., King, J. N., Seewald, W., Sakakibara, N. and Okumura, M. 2012. Comparison of oral robenacoxib and ketoprofen for the treatment of acute pain and inflammation associated with musculoskeletal disorders in cats: a randomised clinical trial. *Vet. J.*, **193**: 397–403.
- 4) Sunaga, T., Oh, N., Hosoya, K., Takagi, S. and Okumura, M. 2012. Pro-apoptotic effects of tepoxalin, a cyclooxygenase/lipoxygenase dual inhibitor, on canine synovial fibroblasts. *J. Vet. Med. Sci.*, **74**: 745–750.
- 5) Sunaga, T., Oh, N., Hosoya, K., Takagi, S. and Okumura, M. 2012. Inhibitory effects of pentosan polysulfate sodium on MAP-kinase pathway and NF-κB nuclear translocation in canine chondrocytes *in vitro*. *J. Vet. Med. Sci.*, **74**: 707–711.
- 6) Yamazaki, H., Takagi, S., Ogi, N., Hosoya, K. and Okumura, M. 2012. Urethral dilation using balloon catheters for uroschesis caused by urine based tumors in four dogs (in

- Japanese). *Journal of Japanese Veterinary Medica Association.* **65**: 530–533.
- 7) Marin, L. M., Iazbik, M. C., Zaldivar-Lopez, S., Lord, L. K., Stingle, N., Vilar, P., Lara-Garcia, A., Alvarez, F., Hosoya, K., Nelson, L., Pozzi, A., Cooper, E., Kisseberth, W., London, C. A., Dudley, R., Dyce, J., McMahon, M., Lerche, P., Bednarski, R. and Couto, C. G. 2012. Retrospective evaluation of the effectiveness of epsilon aminocaproic acid for the prevention of postamputation bleeding in retired racing Greyhounds with appendicular bone tumors: 46 cases (2003–2008). *J. Vet. Emerg. Crit. Care.*, **22**: 332–340.

## Other than original articles

- 1) Okumura, M. 2012. Retrospective case-control study of the effects of long-term dosing with meloxicam on renal function in aged cats with degenerative joint disease. *Information for Veterinarian.* **15(3)**: 43–50. (Japanese Translation).
- 2) Okumura, M. 2012. Carpal fracture in a cat; diagnosis and partial arthrodesis. *Information for Veterinarian.* **15(4)**: 26–28. (in Japanese).
- 3) Okumura, M. 2012. Radial and ulnar fracture in small dogs: How would you treat? *Information for Veterinarian.* **15(5)**: 23–25. (in Japanese).
- 4) Okumura, M. 2012. Administration of non-steroidal anti-inflammatory drugs for dogs with fracture; fracture healing and COX inhibition. *Clinic Note.* **8(4)**: 61–69. (in Japanese).
- 5) Takagi, S. 2012. Partial liver lobectomy: 5 cases. *Surgeon.* **16 (2)**: 62–69. (in Japanese).
- 6) Takagi, S. 2012. Surgical approaches to the pelvic cavity. *Jpn. J. Vet. Clin. Oncol.* **8 (2)**: 78–84. (in Japanese).
- 7) Hosoya, K. 2012. Lung lobectomy in dogs: Application, anatomy, technique, and postoperative care. *Companion Animal Practice.* **280(10)**: 22–33. (in Japanese).
- 8) Adachi, M. 2012. Acute tumor lysis syndrome in a dog with acute lymphoblastic leukemia. *The journal of the Hokkaido Veterinary Medical Association.* **56(12)**: 22–25. (in Japanese).

## Laboratory of Comparative Pathology

### Original articles

- 1) Yabe, J., Nakayama, S. M. M., Ikenaka, Y., Muzandu, K., Ishizuka, M. and Umemura, T. 2012. Accumulation of metals in the liver and kidneys of cattle from agricultural areas in Lusaka, Zambia. *J. Vet. Med. Sci.*, **74**: 1345–1347.
- 2) Lee, H. K., Sunden, Y., Sakai, Y., Ochiai, K. and Umemura, T. 2012. CXCL12 improves immune responses to neurotropic virus propagation in the CNS by attracting antibody secreting cells. *Vet. Immunol. Immunopathol.*, **150**: 19–26.
- 3) Sakoda, Y., Naito, M., Ito, M., Ito, Y., Isoda, N., Tanaka, T., Umemura, T. and Kida, H. 2012. Recovery of leptospires from miniature pigs experimentally infected with *Leptospira interrogans* serovar *Manilae* strain UP-MMC under immunosuppressive conditions by dexamethasone. *J. Vet. Med. Sci.*, **74**: 955–958.
- 4) Ochi, A., Ochiai, K., Kobara, A., Nakamura, S., Hatai, H., Handharyani, E., Tieman, I., Tanaka III, I. B., Toyoda, T., Abe, A., Seok, S. H., Sunden, Y., Torralba, N. C., Park, J. H., Hafez, H. M. and Umemura, T. 2012. Epidemiological study of fowl glioma-inducing virus in chickens in Asia and Germany. *Avian Pathol.*, **41**: 299–310.
- 5) Sakoda, Y., Ito, H., Uchida, Y., Okamatsu, M., Yamamoto, N., Soda, K., Nomura, N.,

- Kuribayashi, S., Shichnohe, S., Sunden, Y., Umemura, T., Usui, T., Ozaki, H., Yamaguchi, T., Murase, T., Ito, T., Saito, T., Takada, A. and Kida, H. 2012. Reintroduction of H5N1 highly pathogenic avian influenza virus by migratory water birds, causing poultry outbreaks in the 2010–2011 winter season in Japan. *J. Gen. Virol.*, **93**: 541–550.
- 6) Ochi, A., Ochiai, K., Nakamura, S., Kobara, A., Sunden, Y. and Umemura, T. 2012. Molecular characteristics and pathogenicity of an avian leukosis virus isolated from avian neurofibrosarcoma. *Avian Dis.*, **56**: 35–43.
- 7) Nakamura, S., Ochiai, K., Ochi, A., Ito, M., Kamiya, T. and Yamamoto, H. 2012. Spontaneous endometriosis in a mandrill (*Mandrillus sphinx*). *J. Comp. Pathol.*, **147**: 386–390.
- 8) Osaki, T., Takagi, S., Hoshino, Y., Aoki, Y., Sunden, Y., Ochiai, K. and Okumura, M. 2012. Temporary regression of locally invasive polypoid rhinosinusitis in a dog after photodynamic therapy. *Aust. Vet. J.*, **90**: 442–447.
- 9) Muto, N. A., Sunden, Y., Hattori, T., Fujikura, D., Nakayama, Y., Miyazaki, T., Maruyama, M., Kimura, T. and Sawa, H. 2012. Pathological examination of lung tissues in influenza a virus-infected mice. *Jpn. J. Infect. Dis.*, **65**: 383–391.
- 10) Suzuki, T., Semba, S., Sunden, Y., Orba, Y., Kobayashi, S., Nagashima, K., Kimura, T., Hasegawa, H. and Sawa, H. 2012. Role of JC virus agnoprotein in virion formation. *Microbiol. Immunol.*, **56**: 639–646.
- 11) Okagawa, T., Konnai, S., Ikebuchi, R., Suzuki, S., Shirai, T., Sunden, Y., Onuma, M., Murata, S. and Ohashi, K. 2012. Increased bovine Tim-3 and its ligand expressions during bovine leukemia virus infection. *Vet. Res.*, **43**: 45.
- 12) Fukuhara, S., Simmons, S., Kawamura, S., Inoue, A., Orba, Y., Tokudome, T., Sunden, Y., Arai, Y., Moriwaki, K., Ishida, J., Uemura, A., Kiyonari, H., Abe, T., Fukamizu, A., Hirashima, M., Sawa, H., Aoki, J., Ishii, M. and Mochizuki, N. 2012. The sphingosine-1-phosphate transporter Spns2 expressed on endothelial cells regulates lymphocyte trafficking in mice. *J. Clin. Invest.*, **122**: 1416–1426.

## Publication other than original articles

- 1) Ochiai, K. 2012. Chapter 1, Introduction and others. In: An Manual of the Veterinary Pathology Practice, 2nd ed., pp.10–17, pp.22–30, pp.78–79, pp.90–103, p.152, (Japanese Society of Veterinary Pathology ed.), Gakusosya, Tokyo. (in Japanese).

## Laboratory of Theriogenology

### Original article

- 1) Uchikura, K., Nagano, M. and Hishinuma, M. 2012. Prediction of maturational competence of feline oocytes using supravitral

staining of cumulus cells by propidium iodide. *Zygote*, **20**: 333–337.

### Publications other than original article

- 1) Takahashi, Y. 2012. Chapter 5–2, Fertilization. Chapter 5–3, Embryo development and implantation. Chapter 7–3, Embryo transfer. In: Textbook of Theriogenology, 4th Edition. Eds. Nakao T., Tsumagari, S. and Katagiri, S. Buneido Pub. Co. Ltd., Tokyo, pp. 142–161, 236–248. (in Japanese).
- 2) Nagano, M. 2012. Chapter 7–4, In vitro

- fertilization. In: Textbook of Theriogenology, 4th Edition. Eds. Nakao T., Tsumagari, S. and Katagiri, S. Buneido Pub. Co. Ltd., Tokyo, pp. 248–258. (in Japanese).
- 3) Yanagawa, Y. 2012. Chapter 20, Evaluation methods of reproductive condition. In: Wildlife Management—Theories and Techniques—Eds. Hayama S., Miura S., Kaji K. and Suzuki M. Buneido Pub. Co. Ltd., Tokyo, pp. 283–295. (in Japanese).

## Laboratory of Molecular Medicine

### Original articles

- 1) Wang, C.-C., Sato, K., Otsuka, Y., Otsu, W. and Inaba, M. 2012. Clathrin-mediated endocytosis of mammalian erythroid AE1 anion exchanger facilitated by a YXXΦ or a noncanonical YXXXΦ motif in the N-terminal stretch. *J. Vet. Med. Sci.*, **74**: 17–25
- 2) Asano, H., Fukunagam, S., Deguchi, Y., Kawamura, S. and Inaba, M. 2012. Bcl-xL and Mcl-1 are involved in prevention of *in vitro* apoptosis in rat late-stage erythroblasts derived from bone marrow. *J. Toxicol. Sci.*, **37**: 23–31.

## Laboratory of Public Health

### Original articles

- 1) Yoshii, K., Moritoh, K., Nagata, N., Yokozawa, K., Sakai, M., Sasaki, N., Kariwa, H., Agui, T. and Takashima, I. 2012. Susceptibility to flavivirus-specific antiviral response of Oas1b affects the neurovirulence of the Far-Eastern subtype of tick-borne encephalitis virus. *Arch. Virol.* [epub ahead of print]
- 2) Sato, S., Kabeya, H., Miura, T., Suzuki, K., Bai, Y., Kosoy, M., Sentsui, H., Kariwa, H. and Maruyama, S. 2012. Isolation and phylogenetic analysis of Bartonella species from wild carnivores of the suborder Caniformia in Japan. *Vet. Microbiol.*, **161**: 130–136.
- 3) Sanada, T., Seto, T., Ozaki, Y., Saasa, N., Yoshimatsu, K., Arikawa, J., Yoshii, K. and Kariwa, H. 2012. Isolation of Hokkaido virus, genus *Hantavirus*, using a newly established cell line derived from the kidney of the grey red-backed vole (*Myodes rufocaninus bedfordiae*). *J. Gen. Virol.*, **93**: 2237–2246.
- 4) Koma, T., Yoshimatsu, K., Taruishi, M., Miyashita, D., Endo, R., Shimizu, K., Yasuda, S. P., Amada, T., Seto, T., Murata, R., Yoshida, H., Kariwa, H., Takashima, I. and Arikawa, J. 2012. Development of a serotyping enzyme-linked immunosorbent assay system based on recombinant truncated hantavirus nucleocapsid proteins for New World hantavirus infection. *J. Virol. Methods.*, **185**: 74–81.
- 5) Sanada, T., Kariwa, H., Saasa, N., Yoshikawa, K., Seto, T., Morozov, V. G., Tkachenko, E. A., Ivanov, L. I., Yoshimatsu, K., Arikawa, J., Yoshii, K. and Takashima, I. 2012. Development of a diagnostic method applicable to various serotypes of hantavirus infection in rodents. *J. Vet. Med. Sci.*, **74**: 1237–1242.
- 6) Saasa, N., Sanchez-Hernandez, C., de Lourdes Romero-Almaraz, M., Guerrero-Ibarra, E., Almazan-Catalan, A., Yoshida, H., Miyashita, D., Ishizuka, M., Sanada, T., Seto, T., Yoshii, K., Ramos, C., Yoshimatsu, K., Arikawa, J., Takashima, I. and Kariwa, H. 2012. Ecology of hantaviruses in Mexico: Genetic identification of rodent host species and spillover infection. *Virus Res.*, **168**: 88–96.

- 7) Saasa, N., Yoshida, H., Shimizu, K., Sanchez-Hernandez, C., Romero-Almaraz, Mde, L., Koma, T., Sanada, T., Seto, T., Yoshii, K., Ramos, C., Yoshimatsu, K., Arikawa, J., Takashima, I. and Kariwa, H. 2012. The N-terminus of the Montano virus nucleocapsid protein possesses broadly cross-reactive conformation-dependent epitopes conserved in rodent-borne hantaviruses. *Virology*, **428**: 48–57.
- 8) Yoshii, K., Igarashi, M., Ichii, O., Yokozawa, K., Ito, K., Kariwa, H. and Takashima, I. 2012. The Conserved Region in the PrM Protein Is a Critical Determinant in the Assembly of Flavivirus Particles. *J. Gen. Virol.*, **93**: 27–38.
- 9) Kariwa, H., Yoshikawa, K., Tanikawa, Y., Seto, T., Sanada, T., Saasa, N., Ivanov, L. I., Slonova, R., Zakharycheva, T. A., Nakamura, I., Yoshimatsu, K., Arikawa, J., Yoshii, K., Takashima, I. 2012. Isolation and characterization of hantaviruses in far East Russia and etiology of hemorrhagic Fever with renal syndrome in the region. *Am. J. Trop. Med. Hyg.*, **86**: 545–553.
- 10) Kariwa, H., Yoshida, H., Sanchez-Hernandez, C., Romero-Almaraz, M. D., Almazan-Catalan, J. A., Ramos, C., Miyashita, D., Seto, T., Takano, A., Totani, M., Murata, R., Saasa, N., Ishizuka, M., Sanada, T., Yoshii, K., Yoshimatsu, K., Arikawa, J. and Takashima, I. 2012. Genetic diversity of hantaviruses in Mexico: Identification of three novel hantaviruses from *Neotominae* rodents. *Virus Res.*, **163**: 486–494.
- 11) Seto, T., Nagata, N., Yoshikawa, K., Ichii, O., Sanada, T., Saasa, N., Ozaki, Y., Kon, Y., Yoshii, K., Takashima, I. and Kariwa, H. 2012. Infection of Hantaan virus strain AA57 leading to pulmonary disease in laboratory mice. *Virus Res.*, **163**: 284–290.

### Publication other than original articles

- 1) Yoshii, K., Yamazaki, S., Mottate, K., Kariwa, H. and Takashima, I. 2012. Genetic and biological characterization or tick-borne encephalitis virus isolated from wild rodents in Hokkaido in 2008. *J. Vet. Med.*, **65**: 377–378. (in Japanese).

## Laboratory of Radiation Biology

### Original articles

- 1) Eitaki, M., Yamamori, T., Meike, S., Yasui, H. and Inanami, O. 2012. Vincristine enhances amoeboid-like motility via GEF-H1/RhoA/ROCK/Myosin light chain signaling in MKN45 cells. *BMC Cancer*, **12**: 469.
- 2) Indo, H. P., Inanami, O., Koumura, T., Suenaga, S., Yen, H. C., Kakinuma, S., Matsumoto, K., Nakanishi, I., St, Clair. W., St, Clair. D. K., Matsui, H., Cornette, R., Gusev, O., Okuda, T., Nakagawa, Y., Ozawa, T. and Majima, H. J. 2012. Roles of mitochondria-generated reactive oxygen species on X-ray-induced apoptosis in a human hepatocellular carcinoma cell line, HLE. *Free Radic. Res.*, **46**: 1029–1043.
- 3) Yamamori, T., Yasui, H., Yamazumi, M., Wada, Y., Nakamura, Y., Nakamura, H. and Inanami, O. 2012. Ionizing radiation induces mitochondrial reactive oxygen species production accompanied by upregulation of mitochondrial electron transport chain function and mitochondrial content under control of the cell cycle checkpoint. *Free Radic. Biol. Med.*, **53**: 260–270.
- 4) Saito, K., Matsumoto, S., Yasui, H., Devasahayam, N., Subramanian, S., Munasinghe, J. P., Patel, V., Gutkind, J. S., Mitchell, J. B. and Krishna, M. C. 2012.

- Longitudinal imaging studies of tumor microenvironment in mice treated with the mTOR inhibitor rapamycin. *PLoS ONE*, **7**: e49456.
- 5) Krishna, M. C., Matsumoto, S., Yasui, H., Saito, K., Devasahayam, N., Subramanian, S. and Mitchell, J. B. 2012. Electron paramagnetic resonance imaging of tumor pO<sub>2</sub>. *Radiat. Res.*, **177**: 376–386.

## Laboratory of Toxicology

### Original articles

- 1) Ohno, M., Ikenaka, Y. and Ishizuka, M. 2012. Sudan III dye strongly induces CYP1A1 mRNA expression in HepG2 cells. *J. Biochem. Mol. Toxicol.*, **26**: 16–22. (doi: 10.1002/jbt.20408)
- 2) Fujisawa, N., Ikenaka, Y., Kim, E. Y., Lee, J. S., Iwata, H. and Ishizuka, M. 2012. Molecular Evidence Predicts Aryl Hydrocarbon Receptor Ligand Insensitivity in the Peregrine Falcon (*Falco peregrinus*). *Eur. J. Wildlife. Res.*, **58**: 167–175.
- 3) Ohno, M., Ikenaka, Y. and Ishizuka, M. 2012. All-trans retinoic acid inhibits the recruitment of ARNT to DNA, resulting in the decrease of CYP1A1 mRNA expression in HepG2 cells. *Biochem. Biophys. Res. Commun.*, **417**: 484–489.
- 4) Shimamoto, Y., Sasaki, M., Ikadai, H., Ishizuka, M., Yokoyama, N., Igarashi, I., Hoshi, F. and Kitamura, H. 2012. Down-Regulation of Hepatic Cytochrome P450 3A in Mice Infected with *Babesia microti*. *J. Vet. Med. Sci.*, **74**: 241–245.
- 5) Nakayama, S. M., Ikenaka, Y., Muzandu, K., Choongo, K., M'kandawire, E., Yasuda, J. and Ishizuka, M. 2012. Metal and metalloid levels and bio-accumulation characteristics in soil, sediment, land plants and hippopotami (*Hippopotamus amphibius* L) from the South Luangwa National Park, Zambia. *Ecotoxicol. Environ. Safe.*, **80**: 333–8.
- 6) Suzuki, S., Konnai, S., Okagawa, T., Githaka, N.W., Kariuki, E., Gakuya, F., Kanduma, E., Shirai, T., Ikebuchi, R., Ikenaka, Y., Ishizuka, M., Murata, S. and Ohashi, K. 2012. Molecular cloning and characterization of Th1 and Th2 cytokines of African buffalo (*Synacerus caffer*). *Int. J. Immunogenet.*, **39**: 170–82. (doi: 10.1111/j.1744-313X.2011.01062.x)
- 7) Uno, T., Ishizuka, M. and Itakura, T. 2012. Cytochrome P450 (CYP) in fish. *Environ. Toxicol. Pharmacol.*, **34**: 1–13.
- 8) Kawamoto, K., Otsuguro, K., Ishizuka, M. and Ito, S. 2012. Inhibitory effects of dopamine on spinal synaptic transmission via D1-like receptors in neonatal rats. *Br. J. Pharmacol.*, **166**: 788–800. (doi: 10.1111/j.1476-5381.2011.01815.x)
- 9) Okagawa, T., Konnai, S., Mekata, H., Githaka, N., Suzuki, S., Kariuki, E., Gakuya, F., Kanduma, E., Shirai, T., Ikebuchi, R., Ikenaka, Y., Ishizuka, M., Murata, S. and Ohashi, K. 2012. Transcriptional profiling of inflammatory cytokine genes in African buffaloes (*Synacerus caffer*) infected with *Theileria parva*. *Vet. Immunol. Immunopathol.*, **148**: 373–379.
- 10) M'kandawire, E., Syakalima, M., Muzandu, K., Pandey, G., Simunza, M., Nakayama, S. M., Kawai, Y. K., Ikenaka, Y. and Ishizuka, M. 2012. The nucleotide sequence of metallothioneins (MT) in liver of the Kafue lechwe (*Kobus leche kafuensis*) and their potential as biomarkers of heavy metal pollution of the Kafue River. *Gene*, **506**: 310–316.
- 11) Tanaka, K. D., Kawai, Y., Ikenaka, Y., Harunari, T., Tanikawa, T., Ando, S., Min, H. W., Okajima, F., Fujita, S. and Ishizuka,

- M. 2012. The genetic mechanisms of warfarin resistance in *Rattus rattus* found in the wild in Japan. *Pestic. Biochem. Physiol.*, **103**: 144–151.
- 12) Mureithi, D., Darwish, W. S., Ikenaka, Y., Kanja, L. and Ishizuka, M. 2012. Cytochrome P450 3A mRNA expression along goat and rat astrointestinal tracts. *Jpn. J. Vet. Res.*, **60**: 205–210.
- 13) Yabe, J., Nakayama, S. M. M., Ikenaka, Y., Muzandu, K., Ishizuka, M. and Umemura, T. 2012. Accumulation of metals in the liver and kidneys of cattle from agricultural areas in Lusaka, Zambia. *J. Vet. Med. Sci.*, **74**: 1345–1347. [https://www.jstage.jst.go.jp/article/jvms/74/10/74\\_12-0142/\\_pdf](https://www.jstage.jst.go.jp/article/jvms/74/10/74_12-0142/_pdf)
- 14) Ikenaka, Y., Nakayama, S. M. M., Muroya, T., Yabe, J., Konnai, S., Darwish, W. S., Muzandu, K., Choongo, K., Mainda, G., Teraoka, H., Umemura, T. and Ishizuka, M. 2012. Effects of environmental lead contamination on cattle in a lead/zinc mining area: changes in cattle immune systems on exposure to lead in vivo and in vitro. *Environ. Toxicol. Chem.*, **31**: 2300–2305.

## Laboratory of Wildlife Biology and Medicine

### Original articles

- 1) Kamine, A., Shimozuru, M., Shibata, H. and Tsubota, T. 2012. Effects of tiletamine-zolazepam with and without premedications on blood chemistry and glucose tolerance tests in Japanese black bears (*Ursus thibetanus japonicus*). *Am. J. Vet. Res.*, **60**: 5–13.
- 2) Weng, Q., Tsubota, T., Dai, M., Tian, Y., Zhang, H., Xu, M., Watanabe, G. and Taya, K. 2012. Immunolocalization of steroidogenic enzymes and its expression during the breeding season in the testes of the wild raccoon dogs (*Nyctereutes procyonoides*). *Anim. Sci. Journal*, **83**: 535–542.
- 3) Kamine, A., Shimozuru, M., Shibata, H. and Tsubota, T. 2012. Changes in blood glucose and insulin responses to intravenous glucose tolerance tests and blood biochemical values in adult female Japanese black bears (*Ursus thibetanus japonicus*). *Jpn. J. Vet. Res.*, **60**: 5–13.
- 4) Okuyama W. M., Shimozuru, M., Takahashi, N., Fukui, D., Nakamura, R. and Tsubota, T. 2012. Seasonal changes in spermatogenesis and peripheral testosterone concentration in raccoon (*Procyon lotor*) in Hokkaido. *J. Vet. Med. Sci.*, **74**: 727–732.
- 5) Jono, M., Kobayashi, Y., Asanuma, T., Tsubota, T. and Sakurai, Y. 2012. Allometric growth and morphology of Steller sea lion fetuses. *Bulletin of Fisheries Sciences, Hokkaido University*, **62**: 1–7. (in Japanese).
- 6) Kooriyama, T., Hasegawa, H., Shimozuru, M., Tsubota, T., Nishida, T. and Iwaki, T. 2012. Parasitology of five primates in Mahale Mountains National Park, Tanzania. *Primates*, **53**: 365–375.
- 7) Shimozuru, M., Kamine, A. and Tsubota, T. 2012. Changes of hepatic genes involved in lipid metabolism during pre-hibernation period in captive adult female Japanese black bears (*Ursus thibetanus japonicus*). *Can. J. Zool.*, **90**: 945–954.
- 8) Takano, A., Sugimori, C., Fujita, H., Kadosaka, T., Taylor, K. R., Tsubota, T., Konnai, S., Tajima, T., Sato, K., Watanabe, H., Ohnishi, M. and Kawabata, H. 2012. A novel relapsing fever *Borrelia* sp. infects the salivary glands of the molted hard-bodied tick, *Amblyomma geoemydae*. *Ticks and Tick-Borne Disease*, **3**: 259–261.
- 9) Kooriyama, T., Okamoto, M., Yoshida, T., Nishida, T., Tsubota, T., Saito, A., Tomonaga, M., Matsuzawa, T., Akari, H.,

- Nishimura, H. and Miyabe-Nishiwaki, T. 2012. Epidemiological study of zoonoses derived from humans in captive chimpanzees. *Primates*, **54**: 89–98.
- 10) Takami, K., Watanabe, Y., Tsubota, T., Fukui, D., Onuma, M., Yamamoto, M. and Murata, K. 2012. How to tackle the management of infectious diseases in wild animals. *Jpn. J. Zoo Wildl. Med.*, **17**: 33–42.
- 11) Shimozuru, M., Kamine, A. and Tsubota, T. 2012. Changes in expression of hepatic genes involved in energy metabolism during hibernation in captive, adult, female Japanese black bears (*Ursus thibetanus japonicus*). *Comp. Biochem. Physiol. Part B*, **163**: 254–261.

## Laboratory of Veterinary Hygiene

### Original articles

- 1) Hasebe, R., Raymond, G. J., Horiuchi, M. and Caughey, B. 2012. Reaction of complement factors varies with prion strains in vitro and in vivo. *Virology*, **423**: 205–213.
- 2) Yamasaki, T., Suzuki, A., Shimizu, T., Watarai, M., Hasebe, R. and Horiuchi, M. 2012. Characterization of intracellular localization of PrP<sup>Sc</sup> in prion-infected cells using monoclonal antibody that recognizes the region consisting of amino acids 119–127 of mouse PrP. *J. Gen. Virol.*, **93**: 668–680.
- 3) Yoshikawa, Y., Horiuchi, M., Ishiguro, N., Kadohira, M., Kai, S., Mizusawa, H., Nagata, C., Onodera, T., Sata, T., Tsutsui, T., Yamada, M. and Yamamoto, S. 2012. Alternative BSE Risk Assessment Methodology of Imported Beef and Beef Offal to Japan. *J. Vet. Med. Sci.*, **74**: 959–968.
- 4) Nakato, G., Hase, K., Suzuki, M., Kimura, M., Ato, M., Tobiume, M., Horiuchi, M., Atarashi, R., Nishida, N., Watarai, M., Imaoka, K. and Ohno H. 2012. Brucella abortus exploits a cellular prion protein on intestinal M cells as an invasive receptor. *J. Immunol.*, **189**: 1540–1544.

## Office for Faculty Development and Teaching Enriched Veterinary Medicine

### Original articles

- 1) Otsuka, S., Ichii, O., Namiki, Y., Sasaki, N., Hashimoto, Y. and Kon, Y. 2012. Genomic analysis of the appearance of testicular oocytes in MRL/MpJ mice. *Mamm. Genome*, **23**: 741–748.
- 2) Naganuma, Y., Ichii, O., Otsuka, S.,

Hashimoto, Y. and Kon, Y. 2012. Analysis of TdT-mediated dUTP nick end labeling (TUNEL)-positive cells associated with cardiac myogenesis in mouse embryo. *J. Vet. Med. Sci.*, in press.

### Publications other than original articles

- 1) Hashimoto, Y. 2012. General Anatomy to Chapter 7 (Digestive system). In: Color Atlas of Veterinary Anatomy, extended revised ed., Vol. 1, pp.23–398, Chikusan Publishing Co., Tokyo. (in Japanese).
- 2) Hashimoto, Y. 2012. Chapter 8 (Digestive

system) to Chapter 20 (Anatomy of the fowl).  
In: Color Atlas of Veterinary Anatomy,

extended revised ed., Vol. 2, pp.435–879,  
Chikusan Publishing Co., Tokyo. (in Japanese).

## Veterinary Teaching Hospital

### Original articles

- 1) Kato, Y., Murakami, M., Hoshino, Y., Mori, T., Maruo, K., Hirata, A., Nakagawa, T. L. D. R., Yanai, T. and Sakai, H. 2012. The class A macrophage scavenger receptor CD204 is a useful immunohistochemical marker of canine histiocytic sarcoma. *J. Comp. Path.*, in press.
- 2) Wickramasekara Rajapakshage, B. K., Yamasaki, M., Hwang, S. J., Sasaki, N., Murakami, M., Tamura, Y., Lim, S. Y., Nakamura, K., Ohta, H. and Takiguchi, M. 2012. Involvement of mitochondrial genes of Babesia gibsoni in resistance to diminazene acetarate. *J. Vet. Med. Sci.*, **74**: 1139–48.
- 3) Sunaga, T., Oh, N., Hosoya, K., Takagi, S. and Okumura, M. 2012. Pro-apoptotic effects of tepoxalin, a cyclooxygenase/lipoxygenase dual inhibitor, on canine synovial fibroblasts. *J. Vet. Med. Sci.*, **74**: 745–750.
- 4) Sunaga, T., Oh, N., Hosoya, K., Takagi, S. and Okumura M. 2012. Inhibitory effects of pentosan polysulfate sodium on MAP-kinase pathway and NF- $\kappa$ B nuclear translocation in canine chondrocytes in vitro. *J. Vet. Med. Sci.*, **74**: 707–711.
- 5) Rajapakshage, B. K., Yamasaki, M., Murakami, M., Tamura, Y., Lim, S. Y., Osuga, T., Sasaki, N., Nakamura, K., Ohta, H. and Takiguchi M. 2012. Analysis of energy generation and glycolysis pathway in diminazene acetarate-resistant Babesia gibsoni isolate in vitro. *Jpn. J. Vet. Res.*, **60**: 51–61.
- 6) Sasaki, N., Kudo, N., Nakamura, K., Lim, S. Y., Murakami, M., Bandula Kumara, W. R., Tamura, Y., Ohta, H., Yamasaki, M. and Takiguchi M. 2012. Activation of microbubbles by short-pulsed ultrasound enhances the cytotoxic effect of cis-diamminedichloroplatinum (II) in a canine thyroid adenocarcinoma cell line in vitro. *Ultrasound Med. Biol.*, **38**: 109–118.
- 7) Osaki, T., Takagi, S., Hoshino, Y., Aoki, Y., Sundén, Y., Ochiai, K. and Okumura, M. 2012. Temporary regression of locally invasive polypoid rhinosinusitis in a dog after photodynamic therapy. *Aust. Vet. J.*, **90**: 442–447.
- 8) Nakamura, K., Yamasaki, M., Osaki, T., Ohta, H., Sasaki, N., Aoshima, K., Kimura, T. and Takiguchi, M. 2012. Bilateral segmental aplasia with unilateral uterine horn torsion in a Pomeranian dog. *J. Am. Anim. Hosp. Assoc.*, **48**: 327–330.
- 9) Hoshino, Y., Mori, T., Sakai, H., Murakami, M. and Maruo, K. 2012. Palliative radiation therapy in a dog with malignant trichoepithelioma. *Aust. Vet. J.*, **90**: 210–213.
- 10) Sakai, H., Murakami, M., Mishima, H., Hoshino, Y., Mori, T., Maruo, K. and Yanai, T. 2012. Cytologically atypical anal sac adenocarcinoma in a dog. *Vet. Clin. Pathol.*, **41**: 291–294.
- 11) Abou Asa, S., Murai, A., Murakami, M., Hoshino, Y., Mori, T., Maruo, K., Khater, A., El-sawak, A., Abd el-Aziz, E., Yanai, T. and Sakai, H. 2012. Expression of platelet-derived growth factor and its receptors in spontaneous canine hemangiosarcoma and cutaneous hemangioma. *Histol. Histopathol.*, **27**: 601–607.
- 12) Yamazaki, H., Takagi, S., Ogi, N., Sunaga, T., Aoki, Y., Hosoya, K. and Okumura, M. 2012. Urethral dilation using balloon catheters for uroschesis caused by urine based tumors in four dogs. *J. Jpn. Vet. Med.*

- Assoc., **65**: 530–533. (in Japanese with English summary).
- 13) Mitake, Y., Mori, T., Hoshino, Y., Ito, Y., Maeda, S., Murai, A., Sakai, H. and Maruo, K. 2012. Giant hypertrophic gastritis in a dog treated with surgical resection. *J. Jpn. Vet. Med. Assoc.*, **65**: 57–60. (in Japanese with English summary).

### Publications other than original articles

- 1) Takagi, S. 2012. Partial liver lobectomy: 5 cases. *Surgeon*, **16**: 62–69. (in Japanese).
- 2) Takagi, S. 2012. Surgical approaches to the pelvic cavity. *Jpn. J. Vet. Clin. Oncol.*, **8**: 78–84. (in Japanese).
- 3) Nakamura, K. 2012. Differentiation of hepatic nodule with ultrasonography (Review). *J. Hokkaido Vet. Med. Assoc.*, **55**: 1–5. (in Japanese).

## Division of Global Epidemiology

### Original articles

- 1) Kajihara, M., Marzi, A., Nakayama, E., Noda, T., Kuroda, M., Manzoor, R., Matsuno, K., Feldmann, H., Yoshida, R., Kawaoka, Y. and Takada, A. 2012. Inhibition of Marburg virus budding by nonneutralizing antibodies to the envelope glycoprotein. *J. Virol.*, **86**: 13467–13474.
- 2) Takano, R., Kiso, M., Igarashi, M., Le, Q. M., Sekijima, M., Ito, K., Takada, A. and Kawaoka, Y. 2012. Molecular mechanisms underlying oseltamivir resistance mediated by an I117V substitution in the neuraminidase of subtype H5N1 avian influenza A viruses. *J. Infect. Dis.*, **207**: 89–97.
- 3) Lee, P. S., Yoshida, Y., Ekiert, D. C., Sakai, N., Suzuki, Y., Takada, A. and Wilson, I. A. 2012. Heterosubtypic antibody recognition of the influenza virus hemagglutinin receptor binding site enhanced by avidity. *Proc. Natl. Acad. Sci. U.S.A.*, **109**: 17040–17045.
- 4) Wong, G., Richardson, J. S., Pillet, S., Patel, A., Qiu, X., Alimonti, J., Hogan, J., Zhang, Y., Takada, A., Feldmann, H. and Kobinger, G. P. 2012. Immune parameters correlating with protection against Ebola virus infection in rodents and nonhuman primates. *Sci. Transl. Med.*, **4**: 158ra146.
- 5) Marzi, A., Yoshida, R., Miyamoto, H., Ishijima, M., Suzuki, Y., Higuchi, M., Matsuyama, Y., Igarashi, M., Nakayama, E., Kuroda, M., Saijo, M., Feldmann, F., Brining, D., Feldmann, H. and Takada, A. 2012. Protective efficacy of neutralizing monoclonal antibodies in a nonhuman primate model of ebola hemorrhagic fever. *PLoS ONE*, **7**: e36192.
- 6) Nidom, C. A., Nakayama, E., Nidom, R. V., Alamudi, M. Y., Daulay, S., Dharmayanti, I. N., Dachlan, Y. P., Amin, M., Igarashi, M., Miyamoto, H., Yoshida, R. and Takada, A. 2012. Serological evidence of ebola virus infection in indonesian orangutans. *PLoS ONE*, **7**: e40740.
- 7) Sakoda, Y., Ito, H., Uchida, Y., Okamatsu, M., Yamamoto, N., Soda, K., Nomura, N., Kuribayashi, S., Shichinohe, S., Sunden, Y., Umemura, T., Usui, T., Ozaki, H., Yamaguchi, T., Murase, T., Ito, T., Saito, T., Takada, A. and Kida, H. 2012. Reintroduction of H5N1 highly pathogenic avian influenza virus by migratory water birds, causing poultry outbreaks in 2010–2011 winter season in Japan. *J. Gen. Virol.*, **93**: 541–550.
- 8) Yamada, S., Shinya, K., Takada, A., Ito, T., Suzuki, T., Suzuki, Y., Le, Q. M., Ebina, M., Kasai, N., Kida, H., Horimoto, T., Rivailleur, P., Chen, L. M., Donis, R. O. and Kawaoka, Y. 2012. Adaptation of a duck influenza A

- virus in quail. *J. Virol.*, **86**: 1411–1420.
- 9) Sato, K., Iwai, A., Nakayama, Y., Morimoto, J., Takada, A., Maruyama, M., Kida, H., Uede, T. and Miyazaki, T. 2012. Osteopontin is critical to determine symptom severity of influenza through the regulation of NK cell population. *Biochem. Biophys. Res. Commun.*, **417**: 274–279.
  - 10) Muto, N. A., Yoshida, R., Suzuki, T., Kobayashi, S., Ozaki, H., Fujikura, D., Manzoor, R., Muramatsu, M., Takada, A., Kimura, T. and Sawa, H. 2012. Inhibitory effects of an M2-specific monoclonal antibody on different strains of influenza A virus. *Jpn. J. Vet. Res.*, **60**: 71–83.
  - 11) Arikata, M., Itoh, Y., Okamatsu, M., Maeda, T., Shiina, T., Tanaka, K., Suzuki, S., Nakayama, M., Sakoda, Y., Ishigaki, H., Takada, A., Ishida, H., Soda, K., Pham, V. L., Tsuchiya, H., Nakamura, S., Torii, R., Shimizu, T., Inoko, H., Ohkubo, I., Kida, H. and Ogasawara, K. 2012. Memory immune responses against pandemic (H1N1) 2009 influenza virus induced by a whole particle vaccine in cynomolgus monkeys carrying Mafa-A1\*052:02. *PLoS ONE*, **7**: e37220.
  - 12) Ishii, A., Thomas, Y., Moonga, L., Nakamura, I., Ohnuma, A., Hang Ombe, B. M., Takada, A., Mweene, A. S. and Sawa, H. 2012. Molecular surveillance and phylogenetic analysis of Old World Arenaviruses in Zambia. *J. Gen. Virol.*, **93**: 2247–2251.
  - 13) Hang'ombe, B. M., Munyeme, M., Nakajima, C., Fukushima, Y., Suzuki, H., Matandiko, M., Ishii, A., Mweene, A. S. and Suzuki, Y. 2012. *Mycobacterium bovis* infection at the interface between domestic and wild animals in Zambia. *BMC Vet. Res.*, **14**: 221.
  - 14) Rahim, Z., Nakajima, C., Raqib, R., Zaman, K., Endtz, H. P., van der Zanden A. G. M. and Suzuki, Y. 2012. Molecular Mechanism of Rifampicin and Isoniazid Resistance in *M. tuberculosis* from Bangladesh. *Tuberculosis*, **92**: 529–534.
  - 15) Yokoyama, K., Kim, H., Mukai, T., Matsuoka, M., Nakajima, C. and Suzuki Y. 2012. Impact of amino acid substitutions in B subunit of DNA gyrase in *Mycobacterium leprae* on fluoroquinolone resistance. *PLoS Negl. Trop. Dis.*, **6**: e1838.
  - 16) Tamaru, A., Nakajima, C., Wada, T., Kawahara, R., Maekura, R., Ozeki, Y., Ogura, H., Kobayashi, K., Suzuki, Y. and Matsumoto, S. 2012. The Dominant Incidence of One Strain of Peculiar Genotype to Multidrug-resistant *Mycobacterium tuberculosis* in Osaka Prefecture, Japan. *PLoS ONE*, **7**: e42505.
  - 17) Rahim, Z., Momi, S. B., Saha, S. K., Zaman, K., Uddin, K. N., Ashraf Jamil, S. N. A., Nahar, N., Azad Khan, A. K., Cooreman, E. A. W. D., Ahmed, M., van der Zanden A. G. M., Nakazima, C., Suzuki, Y. and Endtz, H. P. 2012. Pulmonary tuberculosis in patients with diabetes mellitus in Bangladesh. *Int. J. Tuberc. Lung Dis.*, **16**: 1132–1133.
  - 18) Rudeeaneksin, J., Bunchoo, S., Srisungngam, S., Sawanpanyalert, P., Chamnangrom, S., Kamolwat, A., Thanasripakdeekul, P., Taniguchi, T., Nakajima, C., Suzuki, Y. and Phetsuksiri, B. 2012. Simple and rapid identification of *Mycobacterium tuberculosis* in BACTEC MGIT960 cultures by in-house loop mediated isothermal amplification. *Jpn. J. Infect. Dis.*, **65**: 306–311.
  - 19) Bi, A., Nakajima, C., Fukushima, Y., Tamaru, A., Sugawara, I., Kimura, A., Kawahara, R., Hu, Z. and Suzuki, Y. 2012. A rapid loop-mediated isothermal amplification assay targeting *hspX* for the detection of *Mycobacterium tuberculosis* complex. *Jpn. J. Infect. Dis.*, **65**: 247–251.
  - 20) Shiratori, B., Zhang, J., Usami, O., Chagan-Yasutan, H., Suzuki, Y., Nakajima, C., Uede, T. and Hattori, T. 2012. Quinolone-induced up-regulation of osteopontin gene promoter activity in human lung epithelial cell line A549. *Antimicrob. Agents Chemother.*, **56**: 2868–2872.
  - 21) Koizumi, N., Nakajima, C., Harunari, T.,

- Tanikawa, T., Tokiwa, T., Uchimura, E., Furuya, T., Mingala, C., Villanueva, M., Ohnishi, M. and Suzuki Y. 2012. A new loop-mediated isothermal amplification method for rapid, simple, and sensitive detection of *Leptospira spp.* in urine. *J. Clin. Microbiol.*, **50**: 2072–2074.
- 22) Poudel, A., Nakajima, C., Fukushima, Y., Suzuki, H., Pandey, B. D., Maharjan, B. and Suzuki, Y. 2012. Molecular characterization of multidrug-resistant *Mycobacterium tuberculosis* isolated in Nepal. *Antimicrob. Agents Chemother.*, **56**: 2831–2836.
- 23) Iwamoto, T., Nakajima, C., Nishiuchi, Y., Kato, T., Yoshida, S., Nakanishi, N., Tamaru, A., Tamura, Y., Suzuki, Y. and Nasu, M. 2012. Genetic diversity of *Mycobacterium avium* subsp. *hominissuis* strains isolated from humans, pigs, and human living environment. *Infect. Genet. Evolu.*, **12**: 846–852.
- 24) Suzuki, Y., Nakajima, C., Tamaru, A., Kim, H., Matsuba, T. and Saito, H. 2012. Sensitivities of ciprofloxacin-resistant *Mycobacterium tuberculosis* clinical isolates to fluoroquinolones: Role of mutant DNA gyrase subunits in drug resistance. *Int. J. Antimicrob. Agents.*, **39**: 435–439.
- 25) Siddiqi, U. R., Shiratori, B., Chagan-Yasutan, H., Ashino, Y., Usuzawa, M., Nakajima, C., Suzuki, Y., Saitoh, H. and Hattori, T. 2012. Distinct clinical features in nontuberculous mycobacterial disease with or without latent tuberculosis infection. *Tohoku J. Exp. Med.*, **226**: 313–319.
- 26) Siddiqi, U. R., Leano, P. S. A., Chagan-Yasutan, H., Shiratori, B., Naitoh, H., Ashino, Y., Suzuki, Y., Hattori, T. and Telan, E. 2012. Frequent detection of anti-tubercular-glycolipid IgG and IgA antibodies in the healthcare workers with latent tuberculosis infection in the Philippines. *Clin. Develop. Immunol.*, **2012**: 610707.
- 27) Utrarachkij, F., Pornraungwong, S., Siripanichgon, K., Nakajima, C., Suzuki, Y., and Suthienkul, O. 2012. Possible horizontal transmission of *Salmonella* via reusable egg trays in Thailand. *Int. J. Food Microbiol.*, **157**: 73–78.
- 28) Yokoyama, K., Kim, H., Mukai, T., Matsuoka, M., Nakajima, C. and Suzuki Y. 2012. Amino acid substitutions at position 95 in GyrA can add fluoroquinolone resistance to *Mycobacterium leprae*. *Antimicrob. Agents Chemother.*, **56**: 697–702.
- 29) Kim, H., Nakajima, C., Kim, Y. U., Yokoyama, K. and Suzuki, Y. 2012. Influence of lineage specific amino acid dimorphism in GyrA on the fluoroquinolone resistance of *Mycobacterium tuberculosis*. *Jpn. J. Infect. Dis.*, **65**: 72–74.
- 30) Yoshizaki, T., Ohtani, K., Motomura, W., Jang, S. J., Mori, K., Kitamoto, N., Yoshida, I., Suzuki, Y. and Wakamiya, N. 2012. Comparison of human blood concentrations of Collectin Kidney 1 (CL-K1) and Mannan-binding lectin (MBL). *J. Biochem.*, **151**: 57–64.

## Publications other than original articles

- 1) Takada, A. 2012. Filovirus tropism: cellular molecules for viral entry. *Front Microbiol.*, **3**: 34.
- 2) Ito, K. and Takada A. 2012. How do viruses survive? Evolution of influenza viruses. *Seibutsuno Kagaku Iden*, **66**: 358–364.
- 3) Ohtani, K., Suzuki, Y. and Wakamiya, N. 2012. Biological functions of the novel collectins CL-L1, CL-K1, and CL-P1. *J. Biomed. Biotech.*, **2012**: 493945.
- 4) Shiratori, B., Saitho, H., Siddiqi, U. R., Zhao, J., Chagan-Yasutan, H., Usuzawa, M., Nakajima, C., Suzuki, Y. and Hattori, T. 2012. Immunological diagnosis of active and latent TB. Cardona P-J (eds.), *Mycobacterium tuberculosis*/Book 1, Intech Open Access Publisher, Rijeka, Croatia, p353–378.

## Division of Molecular Pathobiology

### Original articles

- 1) Muleya, W., Namangala, B., Mweene, A., Zulu, L., Fandamu, P., Banda, D., Kimura, T., Sawa, H. and Ishii, A. 2012. Molecular epidemiology and a loop-mediated isothermal amplification method for diagnosis of infection with rabies virus in Zambia. *Virus Res.*, **163**: 160–168.
- 2) Kobayashi, S., Orba, Y., Yamaguchi, H., Kimura, T. and Sawa, H. 2012. Accumulation of ubiquitinated proteins is related to the West Nile virus-induced neuronal apoptosis. *Neuropathology*, **32**: 398–405.
- 3) Nagakawa, K., Niikura, K., Suzuki, T., Matsuo, Y., Igarashi, M., Sawa, H. and Ijiro, K. 2012. Virus Capsid coating of gold nanoparticles via cysteine-Au interactions and their effective cellular uptakes. *Chem. Lett.*, **41**: 113–115.
- 4) Hang'ombe, B. M., Nakamura, I., Samui, K. L., Kaile, D., Mweene, A. S., Kilonzo, B. S., Sawa, H., Sugimoto, C. and Wren, B. W. 2012. Evidence of Yersinia pestis DNA from fleas in an endemic plague area of Zambia. *BMC Res. Notes*, **5**: 72.
- 5) Hang'ombe, B., Mwansa, J. C. L., Muwowa, S., Mulenga, P., Kapina, M., Musenga, E., Squarre, D., Mataa, L., Thomas, S. Y., Ogawa, H., Sawa, H. and Higashi, H. 2012. Human—Animal Anthrax outbreak in the Luangwa valley of Zambia in 2011. *Trop. Doct.*, **42**: 136–139.
- 6) Fukuhara, S., Simmons, S., Kawamura, S., Inoue, A., Orba, Y., Tokudome, T., Sunden, Y., Arai, Y., Moriwaki, K., Ishida, J., Uemura, A., Kiyonari, H., Abe, T., Fukamizu, A., Hirashima, M., Sawa, H., Aoki, J., Ishii, M. and Mochizuki, N. 2012. The sphingosine-1-phosphate transporter Spns2 expressed on endothelial cells regulates lymphocyte trafficking in mice. *J. Clin. Invest.*, **122**: 1416–1426.
- 7) Dang, X., Wüthrich, C., Gordon, J., Sawa, H. and Koralnik,, I. J. 2012. JC Virus Encephalopathy Is Associated with a Novel Agnoprotein-Deletion JCV Variant. *PLoS ONE* **7**: e35793.
- 8) Furuta, Y., Oridate, N., Takeichi, N., Fukuda, S. and Sawa, H. 2012. Alpha-defensin overexpression in patients with Bell's palsy and Ramsay Hunt syndrome. *Ann. Otol. Rhinol. Laryngol.*, **121**: 419–25.
- 9) Muto, N. A., Sunden, Y., Hattori, T., Fujikura, D., Nakayama, Y., Miyazaki, T., Maruyama, M., Kimura, T. and Sawa, H. 2012. Pathological examination of lung tissues in influenza A virus-infected aged mice. *Jpn. J. Infect. Dis.*, **65**: 383–391.
- 10) Muto, N. A., Yoshida, R., Suzuki, T., Kobayashi, S., Ozaki, H., Fujikura, D., Manzoor, R., Muramatsu, M., Takada, A., Kimura, T. and Sawa, H. 2012. Inhibitory effects of an M2-specific monoclonal antibody on different strains of influenza A virus. *Jpn. J. Vet. Res.*, **60**: 71–83.
- 11) Nakamura, K., Yamasaki, M., Osaki, T., Ohta, H., Sasaki, N., Aoshima, K., Kimura, T. and Takiguchi, M. 2012. Bilateral segmental aplasia with unilateral uterine horn torsion in a pomeranian bitch. *J. Am. Anim. Hosp. Assoc.*, **48**: 327–330.
- 12) Ishii, A., Thomas, Y., Moonga, L., Nakamura, I., Ohnuma, A., Hang'ombe, B., Takada, A., Mweene, A. S., and Sawa, H. 2012. Molecular surveillance and phylogenetic analysis of Old World Arenaviruses in Zambia. *J. Gen. Virol.*, **93**: 2247–2251.
- 13) Suzuki, T., Semba, S., Sunden, Y., Orba, Y., Kobayashi, S., Nagashima, K., Kimura, T., Hasegawa, H. and Sawa, H. 2012. Role of JC virus agnoprotein in virion formation. *Microbiol. Immunol.*, **56**: 636–646.
- 14) Muleya, W., Namangala, B., Simunza, M., Nakao, R., Inoue, N., Kimura, T., Ito, K., Sugimoto, C. and Sawa, H. 2012. Population

- genetic analysis and sub-structuring of *Theileria parva* in the northern and eastern parts of Zambia. *Parasit. Vectors*, **5**: 255.
- 15) Sasaki, M., Setiyono, A., Handharyani, E., Rahmadani, I., Taha, S., Adiani, S., Subangkit, M., Sawa, H., Nakamura, I. and Kimura, T. 2012. Molecular detection of a novel paramyxovirus in fruit bats from Indonesia. *Virol. J.*, **9**: 240.
  - 16) Niikura, K., Sugimura, N., Musashi, Y., Mikuni, S., Matsuo, Y., Kobayashi, S., Nagakawa, K., Takahara, S., Takeuchi, C., Sawa, H., Kinjo, M. and Ijiro, K. Virus-like particles with removable cyclodextrins enable glutathione-triggered drug release in cells. *Mol. BioSyst.*, in press.
  - 17) Takahashi, K., Orba, Y., Kimura, T., Wang, L., Kohsaka, S., Tsuda, M., Tanino, M., Nishihara, H., Nagasima, K., Sawa, H. and Tanaka, S. The relationship between methyl CpG binding protein 2 and JC viral proteins. *Jpn. J. Infect. Dis.*, in press.

## Division of Collaboration and Education

### Original articles

- 1) Nakao, R., Morrison, L. J., Zhou, L., Magona, J. W., Jongejan, F. and Sugimoto, C. 2012. Development of multiple-locus variable-number tandem-repeat analysis for rapid genotyping of *Ehrlichia ruminantium* and its application to infected *Amblyomma variegatum* collected in heartwater endemic areas in Uganda. *Parasitology*, **139**: 69–82.
- 2) Hang'ombe, B. M., Nakamura, I., Samui, K. L., Kaile, D., Mweene, A. S., Kilonzo, B. S., Sawa, H., Sugimoto, C. and Wren, B. W. 2012. Evidence of *Yersinia pestis* DNA from fleas in an endemic plague area of Zambia. *BMC Res. Notes*, **5**: 72.
- 3) Amiruddin, N., Lee, X. W., Blake, D. P., Suzuki, Y., Tay, Y. L., Lim, L. S., Tomley, F. M., Watanabe, J., Sugimoto, C. and Wan, K. L. 2012. Characterization of full-length cDNA sequences provides insights into the *Eimeria tenella* transcriptome. *BMC Genomics*, **13**: 21.
- 4) Dang, Z., Feng, J., Yagi, K., Sugimoto, C., Li, W. and Oku, Y. 2012. Mucosal adjuvanticity of fibronectin-binding peptide (FBP) fused with *Echinococcus multilocularis* tetraspanin 3: Systemic and local antibody responses. *PLoS Negl. Trop. Dis.*, **6**: e1842.
- 5) Nakayama, J., Nakao, R., Alhassan, A. and Sugimoto, C. 2012. Molecular epidemiological studies on animal trypanosomiases in Ghana. *Parasit. Vectors*, **5**: 217.
- 6) Hayashida, K., Kajino, K., Hattori, M., Wallace, M., Morrison, I., Greene, M. I. and Sugimoto, C. 2012. MDM2 regulates a novel form of incomplete neoplastic transformation of *Theileria parva* infected lymphocytes. *Exp. Mol. Pathol.*, **94**: 228–238.
- 7) Hayashida, K., Hara, Y., Abe, T., Yamasaki, C., Toyoda, A., Kosuge, T., Suzuki, Y., Sato, Y., Kawashima, S., Katayama, T., Wakaguri, H., Inoue, N., Homma, K., Tada-Umezaki, M., Yagi, Y., Fujii, Y., Habara, T., Kanehisa, M., Watanabe, H., Ito, K., Gojobori, T., Sugawara, H., Imanishi, T., Weir, W., Gardner, M., Pain, A., Shiels, B., Hattori, M., Nene, V. and Sugimoto, C. 2012. Comparative genome analysis of three eukaryotic parasites with differing abilities to transform leukocytes reveals key mediators of theileria-induced leukocyte transformation. *MBio.*, **3**: e00204-12.
- 8) Dang, Z., Yagi, K., Oku, Y., Kouguchi, H., Kajino, K., Matsumoto, J., Nakao, R., Wakaguri, H., Toyoda, A., Yin, H. and Sugimoto, C. 2012. A pilot study on developing mucosal vaccine against alveolar echinococcosis (AE) using recombinant tetraspanin 3: Vaccine efficacy and

- immunology. *PLoS Negl. Trop. Dis.*, **6**: e1570.
- 9) Namangala, B., Hachaambwa, L., Kajino, K., Mweene, A. S., Hayashida, K., Simunza, M., Simukoko, H., Choongo, K., Chansa, H., Lakhi, S., Moonga, L., Chota, A., Ndebe, J., Nsakashalo-Senkwe, M., Chizema, E., Kasonka, L. and Sugimoto, C. 2012. The use of Loop-mediated isothermal amplification (LAMP) to detect the re-emerging human African Trypanosomiasis (HAT) in the Luangwa and Zambezi valleys. *Parasit. Vectors*, **5**: 282.
  - 10) Muleya, W., Namangala, B., Simunza, M., Nakao, R., Inoue, N., Kimura, T., Ito, K., Sugimoto, C. and Sawa, H. 2012. Population genetic analysis and sub-structuring of *Theileria parva* in the northern and eastern parts of Zambia. *Parasit. Vectors*, **5**: 255.
  - 11) Kumar, S., Yokoyama, N., Kim, J. Y., Bork-Mimm, S., Inoue, N., Xuan, X., Igarashi, I. and Sugimoto, C. 2012. *Theileria equi* merozoite antigen-2 interacts with actin molecule of equine erythrocyte during their asexual development. *Exp. Parasitol.*, **32**: 508–512.
  - 12) Kariwa, H., Yoshikawa, K., Tanikawa, Y., Seto, T., Sanada, T., Saasa, N., Ivanov, L. I., Slonova, R., Zakharycheva, T. A., Nakamura, I., Yoshimatsu, K., Arikawa, J., Yoshii K. and Takashima, I. 2012. Isolation and characterization of hantaviruses in Far East Russia and etiology of hemorrhagic fever with renal syndrome in the region. *Am. J. Trop. Med. Hyg.*, **86**: 545–553.

## Division of Bioinformatics

### Original articles

- 1) Nagakawa, K., Niikura, K., Suzuki, T., Matsuo, Y., Igarashi, M., Sawa, H. and Ijiro, K. 2012. Virus capsid coating of gold nanoparticles via cysteine-Au interactions and their effective cellular uptakes. *Chem. Lett.*, **41**: 113–115.
- 2) Yoshii, K., Igarashi, M., Ichii, O., Yokozawa, K., Ito, K., Kariwa, H. and Takashima, I. 2012. A conserved region in the prM protein is a critical determinant in the assembly of flavivirus particles. *J. Gen. Virol.*, **93**: 27–38.
- 3) Marzi, A., Yoshida, R., Miyamoto, H., Ishijima, M., Suzuki, Y., Higuchi, M., Matsuyama, Y., Igarashi, M., Nakayama, E., Kuroda, M., Saijo, M., Feldmann, F., Brining, D., Feldmann, H. and Takada, A. 2012. Protective efficacy of neutralizing monoclonal antibodies in a nonhuman primate model of ebola hemorrhagic fever. *PloS ONE*, **7**: e36192.
- 4) Ueno, K., Mineta, K., Ito, K. and Endo, T. 2012. Exploring functionally related enzymes using radially distributed properties of active sites around the reacting points of bound ligands. *BMC Struct. Biol.*, **12**: 5.
- 5) Nakahara, K. S., Masuta, C., Yamada, S., Shimura, H., Kashihara, Y., Wada, T. S., Meguro, A., Goto, K., Tadamura, K., Sueda, K., Sekiguchi, T., Shao, J., Itchoda, N., Matsumura, T., Igarashi, M., Ito, K., Carthew, R. W. and Uyeda, I. 2012. Tobacco calmodulin-like protein provides secondary defense by binding to and directing degradation of virus RNA silencing suppressors. *Proc. Natl. Acad. Sci. U. S. A.*, **109**: 10113–10118.
- 6) Nidom, C. A., Nakayama, E., Nidom, R. V., Alamudi, M. Y., Daulay, S., Dharmayanti, I. N. L. P., Dachlan, Y. P., Amin, M., Igarashi, M., Miyamoto, H., Yoshida, R. and Takada, A. 2012. Serological evidence of ebola virus infection in Indonesian orangutans. *PloS ONE*, **7**: e40740.
- 7) Tiwananthagorn, S., Bhutto, A. M., Baloch, J. H., Soomro, F. R., Kawamura, Y., Nakao, R., Aoshima, K., Nonaka, N., Oku, Y. and Katakura, K. 2012. Zoophilic feeding

- behaviour of phlebotomine sand flies in the endemic areas of cutaneous leishmaniasis of Sindh Province, Pakistan. *Parasitol. Res.*, **111**: 125–133.
- 8) Hayashida, K., Hara, Y., Abe, T., Yamasaki, C., Toyoda, A., Kosuge, T., Suzuki, Y., Sato, Y., Kawashima, S., Katayama, T., Wakaguri, H., Inoue, N., Homma, K., Tada-Umezaki, M., Yagi, Y., Fujii, Y., Habara, T., Kanehisa, M., Watanabe, H., Ito, K., Gojobori, T., Sugawara, H., Imanishi, T., Weir, W., Gardner, M., Pain, A., Shiels, B., Hattori, M., Nene, V. and Sugimoto, C. 2012. Comparative genome analysis of three eukaryotic parasites with differing abilities to transform leukocytes reveals key mediators of Theileria-induced leukocyte transformation. *MBio*, **3**: e00204–12.
- 9) Takano, R., Kiso, M., Igarashi, M., Le, Q. M., Sekijima, M., Ito, K., Takada, A. and Kawaoka, Y. 2012. Molecular mechanisms underlying oseltamivir resistance mediated by an I117V substitution in the NA of H5N1 avian influenza viruses. *J. Infect. Dis.*, **207**: 89–97.
- 10) Nakayima, J., Nakao, R., Alhassan, A., Mahama, C., Afakye, K. and Sugimoto, C., 2012. Molecular epidemiological studies on animal trypanosomiases in Ghana. *Parasit. Vectors*, **5**: 217.
- 11) Muleya, W., Namangala, B., Simunza, M., Nakao, R., Inoue, N., Kimura, T., Ito, K., Sugimoto, C. and Sawa, H. 2012. Population genetic analysis and sub-structuring of Theileria parva in the northern and eastern parts of Zambia. *Parasit. Vectors*, **5**: 255.

## Publications other than original articles

- 1) Ito, K. and Takada, A., 2012. How do viruses survive? Ecology and evolution of influenza viruses. *Iden*, **66**: 358–364. (in Japanese).
- 2) Ito, K., 2012. Can mathematical science

predict the future evolution of influenza viruses? *B Jpn. Soc. Ind. Appl. Math.*, **22**: 183–192. (in Japanese).

## Division of Infection and Immunity

### Original articles

- 1) Fujikura, D., Ito, M., Chiba, S., Harada, T., Perez, F., Reed, J. C., Uede, T. and Miyazaki, T. 2012. CLIPR-59 regulates TNF- $\alpha$ -induced apoptosis by controlling ubiquitination of RIP1. *Cell Death Dis.*, **3**: e264.
- 2) Hang'ombe, B. M., Mwansa, J. C. L., Muwono, S., Mulenga, P., Kapina, M., Musenga, E., Squarre, D., Mataa, L., Thomas, S. Y., Ogawa, H., Sawa, H. and Higashi, H. 2012. Human—Animal Anthrax outbreak in the Luangwa valley of Zambia in 2011. *Trop. Doct.*, **42**: 136–139.
- 3) Hayashi, T., Senda, M., Morohashi, H., Higashi, H., Horio, M., Kashiba, Y., Nagase, L., Sasaya, D., Shimizu, T., Venugopalan, N., Kumeta, H., Noda, N. N., Inagaki, F., Senda, T. and Hatakeyama, M. 2012. Tertiary structure-function analysis reveals the pathogenic signaling potentiation mechanism of *Helicobacter pylori* oncogenic effector CagA. *Cell Host Microbe.*, **12**: 20–33.