

## 13. 業績目録

1. Identification and Expression of *Babesia ovis* Secreted Antigen 1 and Evaluation of Its Diagnostic Potential in an Enzyme-Linked Immunosorbent Assay. Ferda Sevinc, Shinuo Cao, Xuenan Xuan, Mutlu Sevinc and Onur Ceylan., Journal of Clinical Microbiology. Accepted 13 February 2015. Accepted manuscript posted online 18 February 2015.
2. Optimization and validation of an ELISA using recombinant *Toxoplasma gondii* matrix antigen 1 for serodiagnosis of the infection. Buyannemekh Tumurjav, Mohamad Alaa Terkawi, Houshuang Zhang, Guohong Zhang, Honglin Jia, Junya Yamagishi, Yoshifumi Nishikawa, Ikuo Igarashi, Chihiro Sugimoto, Xuenan Xuan., Mongolian Journal of Agricultural Sciences Vol.15(2) 2015; p56-60
3. RNA polymerase sub-unit  $\beta$  (*rpoB*) characterization of *Ehrlichia canis* detected from dogs and *Rhipicephalus sanguineus* ticks in Cebu, Philippines. Adrian P. Ybañez, Rochelle Haidee D. Ybañez, Naoaki Yokoyama and Hisashi Inokuma., Veterinarski arhiv, Vol.85 No.6 Prosinac 2015.
4. Transcriptome and histopathological changes in mouse brain infected with *Neospora caninum*. Maki Nishimura, Sachi Tanaka, Fumiaki Ihara, Yoshikage Muroi, Junya Yamagishi, Hidefumi Furuoka, Yutaka Suzuki & Yoshifumi Nishikawa., Scientific Reports. 2015 Jan 21;5:p7936.
5. Sperm membrane proteome in wild Japanese macaque (*Macaca fuscata*) and Sika deer (*Cervus nippon*). Osamu Kawase, Shinuo Cao, Xuenan Xuan., Theriogenology. 2015 Jan 1;83(1):p95-102.
6. Role of the chemokine receptor CCR5-dependent host defense system in *Neospora caninum* infections. Chisa Abe, Sachi Tanaka, Maki Nishimura, Fumiaki Ihara, Xuenan Xuan and Yoshifumi Nishikawa., Parasites & Vectors. 2015 Jan 6;8:5.
7. Macrophages are the determinant of resistance to and outcome of nonlethal *Babesia microti* infection in mice. Mohamad Alaa Terkawi, Shinuo Cao, Maria S. Herbas, Maki Nishimura, Yan Li, Paul Franck Adjou Moumouni, Asadullah

Hamid Pyarokhil, Daisuke Kondoh, Nobuo Kitamura, Yoshifumi Nishikawa, Kentaro Kato, Naoaki Yokoyama, Jinlin Zhou, Hiroshi Suzuki, Ikuo Igarashi and Xuenan Xuan., **Infection and Immunity**. 2015 Jan ; 83(1):p8-16.

8. **DB-AT: a 2015 update to the Full-parasites database brings a multitude of new transcriptomic data for apicomplexan parasites.** Marcin Jałalski, Hiroyuki Wakaguri, Tabea G. Kischka, Yoshifumi Nishikawa, Shin-ichiro Kawazu, Makoto Matsubayashi, Fumiya Kawahara, Naotoshi Tsuji, Shinuo Cao, Fujiko Sunaga, Xuenan Xuan, Kazuhiro Okubo, Ikuo Igarashi, Josef Tuda, Arthur E. Mongan, Yuki Eshita, Ryuichiro Maeda, Wojciech Makalowski, Yutaka Suzuki and Junya Yamagishi., **Nucleic Acids Research**. 2015 Jan;43(Database issue):D631-6.

9. **Seroprevalence and risk factors associated with exposure of water buffalo (*Bubalus bubalis*) to *Neospora caninum* in northeast Thailand.** Chanya Kengradomkij, Tawin Inpankaew, Ketsarin Kamyinkird, Kannika Wongpanit, Sirichai Wongnakphet, Thomas J. Mitchell, Xuenan Xuan, Ikuo Igarashi, Sathaporn Jittapalapong, Roger W. Stich., **Veterinary Parasitology**. 2015 Jan 15;207(1-2):p156-160.

10. **Calcium ions are involved in egress of *Babesia bovis* merozoites from bovine erythrocytes.** Ehab Mossaad, Masahito Asada, Daichi Nakatani, Noboru Inoue, Naoaki Yokoyama, Osamu Kaneko and Shin-ichiro Kawazu., **Journal of Veterinary Medical Science**. 2015 Jan ; 77(1):p53-58.

11. **Genetic diversity in *Trypanosoma theileri* from Sri Lankan cattle and water buffaloes.** Naoaki Yokoyama, Thillaiampalam Sivakumar, Shintaro Fukushi, Muncharee Tattiyapong, Bumduuren Tuvshintulga, Hemal Kothalawala, Seekkuge Susil Priyantha Silva, Ikuo Igarashi, Noboru Inoue., **Veterinary Parasitology**. 2015 Jan 30; 207(3-4): p335-341.

12. **Application of crude and recombinant ELISAs and immunochromatographic test for serodiagnosis of animal trypanosomosis in the Umkhanyakude district of KwaZulu-Natal province, South Africa.** Thu-Thuy Nguyen, Mono Sophie Motsiri, Moeti Oriel Taioe, Moses Sibusiso MTSHALI, Yasuyuki GOTO, Shin-Ichiro KAWAZU, Oriel Matlhahane Molifi THEKISOE and Noboru INOUE., **Journal of Veterinary Medical Science**. 2015 Feb; 77(2): p217-220.

13. **Structural and functional divergence of the aldolase fold in *Toxoplasma gondii*.** Michelle L. Tonkin<sup>1</sup>, Andrei S. Halavaty, Raghavendran Ramaswamy, Jiapeng Ruan, Makoto Igarashi, Huân M. Ngô, Martin J. Boulanger., **Journal of Molecular Biology**. 2015 Feb 27; 427(4): p840-852.
14. **An epidemiological survey of bovine *Babesia* and *Theileria* parasites in cattle, buffaloes, and sheep in Egypt.** Ahmed Elsify, Thillaiampalam Sivakumar, Mohammed Nayel, Akram Salama, Ahmed Elkhtam, Mohamed Rizk, Omar Mosaab, Khaled Sultan, Shimaa Elsayed, Ikuo Igarashi, Naoaki Yokoyama., **Parasitology International**. 2015 Feb; 64(1): p79-85.
15. **Application of crude and recombinant ELISAs and immunochromatographic test for serodiagnosis of animal trypanosomiasis in the Umkhanyakude district of KwaZulu-Natal province, South Africa.** Thu-Thuy Nguyen, Mono Sophie Motsiri, Moeti Oriel Taioe, Moses Sibusiso Mtshali, Yasuyuki Goto, Shin-Ichiro Kawazu, Oriel Matlhahane Molifi Thekisoie and Noboru Inoue., **Journal of Veterinary Medical Science**. 2015 Feb; 77(2): p217-220.
16. **The role of carbohydrates in infection strategies of enteric pathogens.** Kentaro Kato and Akiko Ishiwa., **Tropical Medicine and Health**. 2015 Mar;43(1):p41-52.
17. **Genetic variations in merozoite surface antigen genes of *Babesia bovis* detected in Vietnamese cattle and water buffaloes.** Naoaki Yokoyama, Thillaiampalam Sivakumar, Bumduuren Tuvshintulga, Kyoko Hayashida, Ikuo Igarashi, Noboru Inoue, Phung Thang Long, Dinh Thi Bich Lan., **Infection Genetics and Evolution**. 2015 Mar;30:p288-295.
18. **Development and optimization of cocktail-ELISA for a unified surveillance of zoonotic schistosomiasis in multiple host species.** Kharleezelle J. Moendeg, Jose Ma. M. Angeles, Yasuyuki Goto, Lydia R. Leonardo, Masashi Kirinoki, Elena A. Villacorte, Pilarita T. Rivera, Noboru Inoue, Yuichi Chigusa, Shin-ichiro Kawazu., **Parasitology Research**. 2015 Mar ; 114(3): p1225-1228
19. **A single mutation in the gatekeeper residue in TgMAPKL-1 restores the inhibitory effect of a bumped kinase inhibitor on the cell cycle.** Tatsuki Sugi,

Shin-ichiro Kawazu, Taisuke Horimoto, Kentaro Kato., **International Journal for Parasitology: Drugs and Drug Resistance.** Volume 5, Issue 1, April 2015, p 1–8

**20. Exposure to 50 Hz electric fields reduces stress-induced glucocorticoid levels in BALB/c mice in a kV/m- and duration-dependent manner.** Takuya Hori, Noboru Inoue, Hiroshi Suzuki and Shinji Harakawa., **Bioelectromagnetics.** 2015 Apr;36(4):p.302-308.

**21. Optimization of a Fluorescence-Based Assay for Large-Scale Drug Screening against *Babesia* and *Theileria* Parasites.** Mohamed Abdo Rizk, Shimaa Abd El-Salam El-Sayed, Mohamed Alaa Terkawi, Mohamed Ahmed Youssef, El Said El Shirbini El Said, Gehad Elsayed, Sabry El-Khodery, Maged El-Ashker, Ahmed Elsify, Mosaab Omar, Akram Salama, Naoaki Yokoyama, Ikuo Igarashi., **PLoS One.** 2015 Apr 27;10(4):e0125276.

**22. Molecular characterization of *Cryptosporidium parvum* from two different Japanese prefectures, Okinawa and Hokkaido.** Madoka Ichikawa-Sekia, Junya Aita, Tatsunori Masatani, Moemi Suzuki, Yoshiki Nitta, Genta Tamayose, Takehiro Iso, Keisuke Suganuma, Takashi Fujiwara, Keita Matsuyama, Tadamas Niikura, Naoaki Yokoyama, Hiroshi Suzuki, Kazuhiro Yamakawa, Hisashi Inokuma, Tadashi Itagaki, Satoshi Zakimi, Yoshifumi Nishikawa., **Parasitology International.** 2015 Apr;64(2):p161-166.

**23. Simultaneous administration of 2-aminoethyl diphenylborinate and chloroquine reverses chloroquine resistance in malaria parasites.** Ehab Mossaad, Wakako Furuyama, Masahiro Enomoto, Satoru Kawai, Katsuhiko Mikoshiba and Shin-ichiro Kawazu., **Antimicrobial Agents and Chemotherapy.** 2015 May; 59(5): p.2890-2892.

**24. Transfection of *Babesia bovis* by Double Selection with WR99210 and Blasticidin-S and Its Application for Functional Analysis of Thioredoxin Peroxidase-1.** Masahito Asada, Kazuhide Yahata, Hassan Hakimi, Naoaki Yokoyama, Ikuo Igarashi, Osamu Kaneko, Carlos E. Suarez, Shin-ichiro Kawazu., **PLoS One.** 2015 May 11; 10(5):e0125993.

**25. Cats as a potential source of emerging influenza virus infections.** Taisuke

Horimoto, Fumihiro Gen, Shin Murakami, Kiyoko Iwatsuki-Horimoto, Kentaro Kato, Masaharu Hisasue, Masahiro Sakaguchi, Chairul A. Nidom, Yoshihiro Kawaoka., **Virologica Sinica**. June 2015, Volume 30, Issue 3, p 221-223. First online: 05 May 2015

**26. Effect of thioredoxin peroxidase-1 gene disruption on the liver stages of the rodent malaria parasite *Plasmodium berghei*.** Miho Usui , Hirono Masuda-Suganuma, Shinya Fukumoto, Jose Ma. M. Angeles, Hassan Hakimi, Noboru Inoue, Shin-ichiro Kawazu., **Parasitology International**. Volume 64, Issue 3, Jun 2015, p 290–294.

**27. Evaluation of *Eimeria kriegsmanni* as a murine model for testing the efficacy of anti-parasitic agents.** Toshinori Takeo, Tetsuya Tanaka, Makoto Matsubayashi, Masashi Tsujio, Rika Umemiya-Shirafuji, Naotoshi Tsuji, Kozo Fujisaki, Toshihiro Matsui and Tomohide Matsuo., **Acta Parasitologica**, 2015 Jun 1;60(2):p190-195.

**28. Mechanisms of interferon-beta-induced inhibition of *Toxoplasma gondii* growth in murine macrophages and embryonic fibroblasts: role of immunity-related GTPase M1.** Motamed Elsayed Mahmoud, Fumiki Ui, Doaa Salman, Maki Nishimura and Yoshifumi Nishikawa., **Cellular Microbiology**. 2015 Jul;17(7):p.1069-1083.

**29. Detection of monoclonal integration of bovine leukemia virus proviral DNA as a malignant marker in two enzootic bovine leukosis cases with difficult clinical diagnosis.** Saori Miura, Noriyuki Horiuchi, Kotaro Matsumoto, Yoshiyasu Kobayashi, Shin-ichiro Kawazu and Hisashi Inokuma., **Journal of Veterinary Medical Science**. 2015 Jul; 77(7): p.883-887.

**30. Development of monoclonal antibodies against *Plasmodium falciparum* thioredoxin peroxidase 1 and its possible application for malaria diagnosis.** Hassan Hakimi, Yasuyuki Goto, Keisuke Suganuma, Jose Ma M. Angeles, Satoru Kawai, Noboru Inoue, Shin-ichiro Kawazu., **Experimental Parasitology**. 2015 Jul;154:p.62-66.

**31. Heparin interacts with elongation factor 1 $\alpha$  of *Cryptosporidium parvum* and inhibits invasion.** Atsuko Inomata, Fumi Murakoshi, Akiko Ishiwa, Ryo Takano,

Hitoshi Takemae, Tatsuki Sugi, Frances Cagayat Recuenco, Taisuke Horimoto & Kentaro Kato., Scientific Reports. 2015 Jul 1;5:p.11599.

**32. Water buffalo as sentinel animals for schistosomiasis surveillance.** Jose Ma M Angeles, Lydia R Leonardo, Yasuyuki Goto, Masashi Kirinoki, Elena A Villacorte, Hassan Hakimi, Kharleezelle J Moendeg, Seungyeon Lee, Pilarita T Rivera, Noboru Inoue, Yuichi Chigusa, Shin-ichiro Kawazu., Bulletin Of The World Health Organization. 2015 Jul 1;93(7):p.511-512.

**33. Seroprevalence of antibody to NcSAG1 antigen of *Neospora caninum* in cattle from Western Java, Indonesia.** Madoka Ichikawa-Seki, Azirwan Guswanto, Puttik Allamanda, Euis Siti Mariamah, Putut Eko Wibowo, Yoshifumi Nishikawa., Journal of Veterinary Medical Science. Article ID: 15-0382, [Advance Publication] Released 2015/08/10

**34. Virulence characterization of *Campylobacter jejuni* isolated from resident wild birds in Tokachi area , Japan.** Anselme Shyaka, Akiko Kusumoto, Warangkhana Chaisowwong, Yoshiki Okouchi, Shinya Fukumoto, Aya Yoshimura, Keiko Kawamoto., Journal of Veterinary Medical Science.. 2015 Aug;77(8):p.967-972.

**35. Molecular characterization of *Cryptosporidium parvum* detected in Japanese black and Holstein calves in Iwate Prefecture and Tanegashima Island, Kagoshima Prefecture, Japan.** Junya Aita, Madoka Ichikawa-Seki, Aiko Kinami, Seiko Yaita, Yoshihiro Kumagai, Yoshifumi Nishikawa and Tadashi Itagaki., Journal of Veterinary Medical Science.. 2015 Aug; 77(8): p997–999.Published online 2015 Mar 27.

**36. Cytoprotective Effects of Lysophospholipids from Sea Cucumber *Holothuria atra*.** Yoshifumi Nishikawa, Ayumi Furukawa, Ikumi Shiga, Yoshikage Muroi, Toshiaki Ishii, Yayoi Hongo, Shunya Takahashi, Tatsuya Sugawara, Hiroyuki Koshino, Masao Ohnishi., PLoS One. 2015 Aug 14;10(8):e0135701.

**37. Probucol-Induced  $\alpha$ -Tocopherol Deficiency Protects Mice against Malaria Infection.** Maria Shirely Herbas, Mototada Shichiri, Noriko Ishida, Aiko Kume, Yoshihisa Hagihara, Yasukazu Yoshida, Hiroshi Suzuki., PLoS One. 2015 Aug 21;10(8):e0136014.

38. **Generation of a Recombinant Akabane Virus Expressing Enhanced Green Fluorescent Protein.** Akiko Takenaka-Uema, Yousuke Murata, Fumihiko Gen, Yukari Ishihara-Saeki, Ken-ichi Watanabe, Kazuyuki Uchida, Kentaro Kato, Shin Murakami, Takeshi Haga, Hiroomi Akashi and Taisuke Horimoto., **Journal Of Virology.** 2015 Sep; 89(18): p9477-9484. Epub 2015 Jul 8.
39. **Distribution of follicles in canine ovary - A simple and rapid method for counting follicles.** Mizuki Hayashi, Madoka Hariya, Mitsunori Kayano, Hiroshi Suzuki., **Cryobiology.** 2015 Sep 25. pii: S0011-2240(15)p.241-242.
40. **Studies of trypanosomiasis in the Luangwa valley, north-eastern Zambia.** Dusit Laohasinnarong, Yasuyuki Goto, Masahito Asada, Ryo Nakao, Kyoko Hayashida, Kiichi Kajino, Shin-ichiro Kawazu, Chihiro Sugimoto, Noboru Inoue, Boniface Namangala., **Parasites & Vectors.** 2015 Sep 30;8:p.497.  
**Erratum to** (<http://www.ncbi.nlm.nih.gov/pubmed/26493091>)
41. **Molecular detection and characterization of *Babesia bovis*, *Babesia bigemina*, *Theileria species* and *Anaplasma marginale* isolated from cattle in Kenya.** Paul Franck Adjou Moumouni, Gabriel Oluga Aboge, Mohamad Alaa Terkawi, Tatsunori Masatani, Shinuo Cao, Ketsarin Kamyngkird, Charoonluk Jirapattharasate, Mo Zhou, Guanbo Wang, Mingming Liu, Aiko Iguchi, Patrick Vudriko, Adrian Patalinghug Ybanez, Hisashi Inokuma, Rika Shirafuji-Umemiya, Hiroshi Suzuki, Xuenan Xuan., **Parasites & Vectors.** 2015 Sep 30; 8: p.496.
42. **Molecular Characterization of *Babesia bovis* M17 Leucine Aminopeptidase and Inhibition of *Babesia* Growth by Bestatin.** Gabriel Oluga Aboge, Shinuo Cao, Mohamad Alaa Terkawi, Tatsunori Masatani, Younkyoung Goo, Mahmoud AbouLaila, Yoshifumi Nishikawa, Ikuo Igarashi, Hiroshi Suzuki and Xuenan Xuan., **Journal of Parasitology.** 2015 Oct; 101(5): p.536-541.
43. **A TeGM6-4r antigen-based immunochromatographic test (ICT) for animal trypanosomosis.** Thu-Thuy Nguyen, Ngasaman Ruttayaporn, Yasuyuki Goto, Shin-ichiro Kawazu, Tatsuya Sakurai, Noboru Inoue., **Parasitology Research.** 2015 Nov; 114(11): p.4319-4325.

44. **A new immunoreactive recombinant protein designated as rBoSA2 from *Babesia ovis*: Its molecular characterization, subcellular localization and antibody recognition by infected sheep.** Ferda Sevinc, Shinuo Cao, Mo Zhou, Mutlu Sevinc, Onur Ceylan, Xuenan Xuan., *Veterinary Parasitology*. 2015 Nov 30;214(1-2):p.213-218.
45. **Cocktail of *Theileria equi* antigens for detecting infection in equines.** Shima Abd El-Salam El-Sayed, Mohamed Abdo Rizk, Mohamed Alaa Terkawi, Ahmed Mousa, El Said El Shirbini El Said, Gehad Elsayed, Mohamed Fouda, Naoaki Yokoyama, Ikuo Igarashi., *Asian Pacific Journal of Tropical Biomedicine*. Volume 5, Issue 12, December 2015, p 977–981
46. **Seroprevalence of antibody to TgGRA7 antigen of *Toxoplasma gondii* in livestock animals from Western Java, Indonesia.** Madoka Ichikawa-Seki, Azirwan Guswanto, Puttik Allamanda, Euis Siti Mariamah, Putut Eko Wibowo, Ikuo Igarashi, Yoshifumi Nishikawa., *Parasitology International*. 2015 Dec;64(6):p.484-486.
47. **The PCR detection and phylogenetic characterization of *Babesia microti* in questing ticks in Mongolia.** Bumduuren Tuvshintulga, Thillaiampalam Sivakumar, Badgar Battsetseg, Sandag-ochir Narantsatsaral, Batsaikhan Enkhtaivan, Banzragch Battur, Kyoko Hayashida, Kazuhiro Okubo, Takahiro Ishizaki, Noboru Inoue, Ikuo Igarashi, Naoaki Yokoyama., *Parasitology International*. 2015 Dec;64(6):p.527-532.
48. **Detection of G119S *ace-1* (*R*) mutation in field-collected *Anopheles gambiae* mosquitoes using allele-specific loop-mediated isothermal amplification (AS-LAMP) method.** Athanase Badolo, Hironori Bando, Alphonse Traoré, Mami Ko-ketsu, Wamdaogo Moussa Guelbeogo, Hirotaka Kanuka, Hilary Ranson, N'Falé Sagnon and Shinya Fukumoto., *Malaria Journal*. 2015 Dec 1;14(1):p.477.
49. **Novel methods for the molecular discrimination of *Fasciola* spp. on the basis of nuclear protein-coding genes.** Takuya Shoriki, Madoka Ichikawa-Seki, Keisuke Sukanuma, Ikunori Naito, Kei Hayashi, Minoru Nakao, Junya Aita, Uday Kumar Mohanta, Noboru Inoue, Kenji Murakami, Tadashi Itagaki., *Parasitology International*. 2015 Dec 8;65(3): p180-183



50. **Characterization of *Toxoplasma gondii* glyoxalase 1 and evaluation of inhibitory effects of curcumin on the enzyme and parasite cultures.**, Youn-Kyoung Goo, Junya Yamagishi, Akio Ueno, Mohamad Alaa Terkawi, Gabriel Oluga Aboge, Dongmi Kwak, Yeonchul Hong, Dong-Il Chung, Makoto Igarashi, Yoshifumi Nishikawa, Xuenan Xuan., **Parasites & Vectors.** 2015 Dec 23;8(1):p654.
51. **The vector potential of *Haemaphysalis longicornis* ticks for *Babesia microti* parasites under experimental condition.** Kodai Kusakisako, Hiroki Maeda, Remil Linggatong Galay, Tomohide Matsuo, Masashi Tsujio, Rika Umemiya-Shirafuji, Masami Mochizuki, Kozo Fujisaki, Tetsuya Tanaka., **J. Protozool. Res.** 2015. Dec: 25(1-2):8-17.
52. **Molecular characterization of *Cryptosporidium andersoni* isolated from Japanese black calves in Tokachi district, Hokkaido Prefecture, Japan.** Junya Aita, Madoka Ichikawa-Sekia, N Fukumoto, Masahito Asada, Yoshifumi Nishikawa, Tadashi Itagaki., **J Protozool Res.** 2015. Dec. 25(1-2):44-47.
53. **First detection of *Babesia venatorum* (EU1) in *Ixodes persulcatus* ticks in Mongolia.** Tuvshintulga B, Battsetseg B, Battur B, Myagmarsuren P, Narantsatsral S, Sivakumar T, Takemae H, Igarashi I, Inoue N and Yokoyama N.: **The Journal of Protozoology Research.**, 25: 29-37, 2015.