

の遺伝子多型解析から地理的に4グループに分類されることが判明した(論文12)。

④中国に分布している3種のエキノコックス条虫の遺伝子多型解析から、単包条虫、多包条虫は最近チベット高地に侵入したものであり、新種 *E. shiquicus* はチベット固有種であると結論された(論文7)。

2) 血清診断法の開発、診断学的研究: ①遺伝子組み換え Em18 を用いる迅速イムノクロマトグラフィ検査法が確立された(論文20)。②ドイツの Kern 教授(2009年から WHO informal working group on Echinococcosis 代表)との共同研究から、多包虫症の病態、病勢と完全に一致する血清検査法は旭川医科大学の Em18-ELISA であると結論された(論文17)。③国内症例で病勢、病態のフォローアップに Em18-ELISA が役立つことが判明した(論文13)。④同様の成績がフランスから報告されている(国際学会発表3)。⑤中国におけるエキノコックス症に関する画像診断と血清診断成績が報告された(論文2,4)。⑥フランス領ギアナから *Echinococcus vogeli* 感染者が確認された(論文11、国際学会発表4)。

3) 疫学研究: ①中国で単包条虫の新しい中間宿主動物が確認された(論文14)。②モンゴルにおいて、多包虫症患者と多包条虫の遺伝子多型が確認された(論文1,3)。

3. 裂頭条虫症研究

1) 分子系統学的研究: 国内外のサンプルを用いて、分類の再検討がなされた(論文5,10)。

4. 人獣共通条虫症研究

上記1)~3)を網羅する形の研究が展開された(総説1~9、国際学会発表1,2,5~19)。

5. その他の寄生虫症研究

マンソン孤虫症、肺吸虫症に関する研究が展開された(論文9,18)。

D. E. 考察・結論

人獣共通幼条虫症(脳囊虫症、エキノコックス症)ならびに条虫症(テニア症、裂頭条虫症)に関する分子、遺伝子から流行の現場までを網羅する総合的な研究を展開してきた。感染者の特定、感染地の特定がかなりの精度で実施できる見通しがついてきた。アジアを中心に、テニア症感染の実態が判明し始めており、我々が開発した免疫学的検査法、遺伝子検査法が流行地の特定、感染者の発見、患者特定に非常に大きく役立つできると評価できよう。特にエキノコックス症(多包虫症、単包虫症)迅速診断キットの開発は、治療を要する活性病巣を有している患者の96%を20分以内に1度の検査でほぼ100%間違いなく確認できることから、病院での外来患者の診断や治癒経過の観察のみならず、地域住民検診にも大きく役立つことが期待される。

米国疾病情報対策センターより、旭川医科大学で開発されたエキノコックス症に関する血清検査法(RecEm18、RecAgB8/1を用いるELISA法)を米国民に対する住民スクリーニング、確認検査法として採用したいので協力してほしいという要請が届いている。平成21年度内に大学として協力する方針が正式に打ち出されることになる。またフランス、フレンチコムテ大学病院(WHO collaboration center for clinical echinococcosis)からもRecEm18、RecAgB8/1の提供を要請されている。

F. 健康危険情報

特になし

G. 研究発表

1. 論文発表

1. Gurbadam A, Naymkhuu D, Nyamkhuu G, Tsendjav A, Sergelen O, Narantuya B, Batsukh Z, Battsetseg G, Oyun-Erdene B, Uranchimeg B, Otgonbaatar D, Temuulen D, Bayarmaa E, Abmed D, Tsogtsaikhan S, Usukhbayar A, Smirmaul K, Gereltuya J, Ito A. Mongolian and Japanese Joint Congress on “Echinococcoses: diagnosis, treatment and prevention in Mongolia” June 4, 2009. *Parasites and Vectors* in press, 2010*
2. Li TY, Ito A, Chen XW, Sako Y, Qiu J, Xiao N, Qiu DC, Nakao M, Craig PS. Specific IgG responses to recombinant antigen B and Em18 in cystic and alveolar echinococcosis in China. *Clinical and Vaccine Immunology* in press, 2010*
3. Ito A, Agvaandaram G, Myadagsuren N, Bat-Ochir OE, Chuluunbaatar B, Nakaya K, Yanagida T, Sako Y, Nakao M, Ishikawa Y, Davaajav A, Dulmaa N. Histopathological, serological and molecular confirmation of alveolar echinococcosis cases in Mongolia. *American Journal of Tropical Medicine and Hygiene* in press, 2010*
4. Li T, Chen X, Zhen R, Qiu J, Qiu D, Xiao N, Ito A, Wang H, Giraudoux P, Sako Y, Nakao M, Craig PS. Wide- spread coendemicity of human cystic and alveolar echinococcosis on the eastern Tibetan plateau, northwest Sichuan/southeast Qinghai, China. *Acta Tropica* in press, 2010*
5. Yanagida T, Matsuoka H, Nakao M, Ito A. Anomalous segmentation of *Diphyllobothrium nihonkaiense*. *Parasitology International* in press, 2010*
6. Yanagida T, Yuzawa I, Joshi DD, Sako Y, Nakao M, Nakaya K, Kawano N, Oka H, Fujii K, Ito A. Neurocysticercosis: assessing where the infection was acquired? *Journal of Travel Medicine* in press, 2010*
7. Nakao M, Li T, Han X, Ma X, Xiao N, Qiu J, Wang H, Yanagida T, Mamuti W, Wen H, Moro PL, Giraudoux P, Craig PS, Ito A. Genetic polymorphisms of *Echinococcus* tapeworms in China as determined by mitochondrial and nuclear DNA sequences. *International Journal for Parasitology* in press, 2010*
8. Okamoto M, Nakao M, Anantaphruti MT, Waikagul J, Blair D, Ito A. Evidence of hybridization between *Taenia saginata* and *Taenia asiatica*. *Parasitology International* in press, 2010*
9. Shirakawa K, Yamasaki H, Ito A, Miyajima H. The wandering lesion: cerebral sparganosis. *Neurology* 74: 180, 2010*
10. Wicht B, Ruggeri-Bernardi N, Yanagida T, Nakao M, Peduzzi R, Ito A. Inter- and intra-species characterization of tapeworms of the genus

- Diphyllobothrium* (Cestoda: Diphyllobothriidea) from Switzerland, using nuclear and mitochondrial DNA targets. *Parasitology International* in press, 2010*
11. Knapp J, Chirica M, Simonnet C, Grenouillet F, Bart JM, Sako Y, Itoh S, Nakao M, **Ito A**, Millon L. *Echinococcus vogeli* infection in a hunter, French Guyana. *Emerging Infectious Diseases* 15, 2029-2031, 2009*
 12. Nakao M, Xiao N, Okamoto M, Yanagida T, Sako Y, **Ito A**. Geographic pattern of genetic variation in the fox tapeworm *Echinococcus multilocularis*. *Parasitology International* 58: 384-389, 2009*
 13. Ishikawa Y, Sako Y, Itoh S, Ohtake T, Kohgo Y, Matsuno T, Ohsaki Y, Miyokawa N, Nakao M, Nakaya K, **Ito A**. Serological monitoring of progression of alveolar echinococcosis with multi-organ involvement using recombinant Em18. *Journal of Clinical Microbiology* 47: 3191-3196, 2009*
 14. Yang YR, Liu R, Bai X, Boufana B, Craig PS, Nakao M, **Ito A**, Zhang JZ, Giraudoux P, McManus DP. Molecular Genotyping Reveals Natural Infection of the Ground Squirrel (*Spermophilus* spp) with *Echinococcus granulosus* in China. *PLoS Neglected Tropical Diseases* 3, e518, 2009*
 15. Snabel V, Altintas N, D'Amelio S, Nakao M, Romig T, Yolasigmaz A, Gunes K, Turk M, Busi M, Huttner D, Sevcova D, **Ito A**, Altintas N, Dubinsky P. Cystic echinococcosis in Turkey: genetic variability and first record of the pig strain (G7) in the country. *Parasitology Research* 105: 145-154, 2009*
 16. Moro PL, Nakao M, **Ito A**, Schantz PM, Caverio C, Cabrera L. Molecular identification of *Echinococcus* isolates from Peru. *Parasitology International* 58: 184-186, 2009*
 17. Tappe D, Sako Y, Itoh S, Frosch M, Gruner B, Reuter S, Nakao M, **Ito A**, Kern P. Close Relationship between Clinical Regression and Specific Serology in the Follow-up of Patients with Alveolar Echinococcosis in Different Clinical Stages. *American Journal of Tropical Medicine and Hygiene* 80: 792-797, 2009*
 18. Nkouawa A, Okamoto M, Mabou AK, Edinga E, Yamasaki H, Sako Y, Nakao M, Nakaya K, Blair D, Agatsuma T, Enyong P, Shibahara T, Moyou-Somo R, **Ito A**. Paragonimiasis in Cameroon: molecular identification, serodiagnosis and clinical manifestations. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 103: 255-261, 2009*
 19. Nkouawa A, Sako Y, Nakao M, Nakaya K, **Ito A**. Loop-mediated isothermal amplification method for differentiation and rapid detection of *Taenia* species. *Journal of Clinical Microbiology* 47: 168-174, 2009*
 20. Sako Y, Fukuda K, Kobayashi Y, **Ito A**. Development of an

Immunochromatographic Test To Detect Antibodies against Recombinant Em18 for Diagnosis of Alveolar Echinococcosis. *Journal of Clinical Microbiology* 47: 252-254, 2009*

2. 総説発表

21. Ito A, Nakao M, Okamoto M, Sako Y, Yanagida T, Nkouawa A, Nakaya K. Taeniasis and cysticercosis: serological detection of patients and animals, and molecular identification of parasites. *Future Microbiology* 2010; in press.
22. Nakao M, Yanagida T, Okamoto M, Knapp J, Nkouawa A, Sako Y, Ito A. Echinococcus and Taenia: phylogenetic taxonomy of human-pathogenic tape-worms and its application to molecular diagnosis. *Infection, Genetics and Evolution* 2010; in press.
23. 伊藤亮. 第 45 回小島三郎記念文化賞「エキノコックス症に関する免疫診断法の開発と流行地での応用」. *モダンメディア* 2009; 55: 257-268.
24. 伊藤亮. 旭川医科大学寄生虫学講座：地域に根ざし世界に発信する研究拠点を指して. *北海道医学雑誌* 2009; 84: 479-481.
25. Ito A, Takayanagui OM. Immunodiagnosis and molecular diagnosis for cysticercosis: usefulness of cerebrospinal fluid (CSF) and serum samples. In: Medina MT (Ed), *Clinical Neurocysticercosis* (The World Federation of Neurocysticercosis, in press,

2010*

26. Flisser A, Craig PS, Ito A. *Taenia solium*, *Taenia saginata* and *Taenia asiatica*. In: Palmer S, Soulsby L, Thorgerson P, Brown D (Eds), *Zoonoses*, Oxford University Press, in press, 2010*
27. Okamoto M, Ito A. Chapter 13. Purification of nucleic acids from helminthes. In: Liu D (Ed), *Handbook of Nucleic Acid Purification*. CRC Press, Taylor & Francis Group, Boca Raton, 271-291, 2009*
28. Ito A, Nakao M, Sako Y, Nakaya K, Okamoto M, Yanagida T. Chapter 62. Taeniasis. In: Liu D (Ed), *Foodborn Pathogens*. CRC Press, Taylor & Francis Group, Boca Raton, 827-838, 2009*

3. 学会発表

(国際学会)

1. Ito A et al. Recent Advances in Serodiagnosis of alveolar and cystic echinococcoses. 第 23 回国際エキノコックス症会議(コロニア、ウルグアイ) Dec. 10-12, 2009.
2. Ito A et al. Phylogeny and phylogeography of Echinococcus. 第 23 回国際エキノコックス症会議(コロニア、ウルグアイ) Dec. 10-12, 2009.
3. Breson-Hadni S et al. Long-term albendazole therapy for recurrent alveolar echinococcosis after liver transplantation: usefulness of “delayed” [18F] FDG PET/CT images and Em18-ELISA for the follow-up. 第 23 回国際エキノコックス症会議(コロニア、ウルグアイ) Dec.

- 10-12, 2009.
4. Knapp J et al. A case of polycystic echinococcosis in a Jaguar hunter from the rain forest of French Guiana. 第23回国際エキノコックス症会議(コロニア、ウルグアイ) Dec. 10-12, 2009.
 5. Ito A. Introduction of the JSPS-AASP Fund Symposium. 第6回国際食品媒介、飲料水媒介人獣共通寄生虫学セミナー(バンコック、タイ) Dec.4, 2009.
 6. Nakao M. Phylogeny and phylogeography of human Taeniid tapeworms. 第6回国際食品媒介、飲料水媒介人獣共通寄生虫学セミナー(バンコック、タイ) Dec.4, 2009.
 7. Okamoto M. Cross-fertilization and hybridization in *Taenia* species. 第6回国際食品媒介、飲料水媒介人獣共通寄生虫学セミナー(バンコック、タイ) Dec.4, 2009.
 8. Yanagida T. Molecular identification and subtyping of food- and water-borne cestodes. 第6回国際食品媒介、飲料水媒介人獣共通寄生虫学セミナー(バンコック、タイ) Dec.4, 2009.
 9. Wandra T et al. Taeniasis/cysticercosis in Bali island, Indonesia. 第6回国際食品媒介、飲料水媒介人獣共通寄生虫学セミナー(バンコック、タイ) Dec.4, 2009.
 10. Dekumyoy P et al. Comparative study of monoclonal antibody-purified antigens from partially-purified delipidized extract and cystic fluid of *Taenia solium* metacestodes. 第6回国際食品媒介、飲料水媒介人獣共通寄生虫学セミナー(バンコック、タイ) Dec.4, 2009.
 11. Nkouawa A et al. Evaluation of a loop-mediated isothermal amplification method using fecal samples for differential detection of taeniid eggs. 2009年熱帯医学合同会議(JITMM2009)(バンコック、タイ) Dec.4, 2009.
 12. Ito A et al. Advances in diagnosis for neurocysticercosis. 国際神経医学会、インドネシア神経医学会合同会議(ウダヤナ、インドネシア) Nov.14, 2009.
 13. Ito A et al. Echinococcoses: serological detection of patients and molecular identification of parasites. 第2回バルチック人獣共通感染症学会(サンクトペテルブルグ、ロシア) Oct. 4, 2009.
 14. Ito A et al. Immuno- and Molecular-Diagnosis of Echinococcoses. 第10回アジア臨床病理、臨床検査医学会国際会議(ウランバートル、モンゴル) Sept. 10, 2009.
 15. Ito A et al. Recent advances in serology and molecular biology on echinococcoses エキノコックス症専門家会議(リマ、ペルー) Mar.20, 2009.
 16. Ito A et al. Topics on cestode zoonoses, *Echinococcus* and echinococcosis. 第43回日米寄生虫病パネリスト会議(東京、日本) Jan. 18, 2009.
 17. Okamoto M et al. Ancestral hybridization between *Taenia saginata* and Asian *Taenia*. 第43回日米寄生虫病パネリスト会議(東京、日本) Jan. 18, 2009.
 18. Nkouawa A et al. Development of a loop-mediated isothermal amplification method for differential

detection of *Taenia* species. 第43回日米寄生虫病パネリスト会議(東京、日本) Jan. 18, 2009.

19. Knapp J et al. Interest and limit of the tandem repeated multilocus microsatellite EmsB to track *Echinococcus multilocularis* in fox faeces in a highly endemic area. 第43回日米寄生虫病パネリスト会議(東京、日本) Jan. 18, 2009.

(国内学会)

省略

H. 知的財産権の出願・登録状況

なし

I. 受賞

- 1) 伊藤 亮: 第45回小島三郎記念文化賞受賞「エキノコックス症に関する免疫診断法の開発と流行地での応用」(東京、2009年10月23日)
- 2) 伊藤 亮: 平成20年度北海道科学技術賞受賞「エキノコックス症に関する国際標準血清、遺伝子診断法の開発と国際共同研究への貢献」(札幌、2009年2月26日)

研究成果の刊行に関する一覧表

研究成果の刊行に関する一覧表

雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Abdel-Hafeez EH, Kikuchi M, Watanabe K, Ito T, Yu C, Chen H, Nara T, Arakawa T, Aoki Y, Hirayama K.	Proteome approach for identification of Schistosomiasis japonica vaccine candidate antigen.	Parasitology International.	58 (1)	36-44	2009
Mogi, T., Matsushita, K., Murase, Y., Kawahara, Miyoshi, H., Ui, H., Shiomi, K., Ōmura, S. and Kita, K.	Identification of New Inhibitors for Alternative NADH Dehydrogenase (NDH-II).	FEMS Microbiol. Lett	291	157-161	2009
Kawahara, K., Mogi, T., Tanaka, Q. T., Hata, M., Miyoshi, H. and Kita K.	Mitochondrial Dehydrogenases in the Aerobic Respiratory Chain of the Rodent Malaria Parasite <i>Plasmodium yoelii yoelii</i>	J. Biochem	145	229-237	2009
. Mogi, T., Ui H., Shiomi, K., Ōmura, S., Miyoshi, H. and Kita, K.	Antibiotics LL-Z1272 identified as novel inhibitors discriminating bacterial and mitochondrial quinol oxidases.	Biochim Biophys. Acta (Bioenergetics)	1787	129-133	2009
Sakakibara, I., Fujino, T., Ishii, M., Tanaka, T., Shimosawa, T., Miura, S., Zhang, W., Tokutake, Y., Yamamoto, J., Awano, M., Iwasaki, S., Motoike, T., Okumura, M., Inagaki, T., Kita, K., Ezaki, O., Naito, M., Kuwaki, T., Chohnan, S., Yamamoto, T., Hammer, R. E., Kodama, T., Yanagisawa, M. and Sakai,	Fasting induced hypothermia and reduced energy production in mice lacking Acetyl-CoA Synthetase 2.	J. Cell Metabolism	9	191-202	2009

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Morales, J., Mogi, T., Mineki, S., Takashima, E., Mineki, R., Hirawake, H., Sakamoto, K., Ōmura, S. and Kita, K.	Novel Mitochondrial Complex II Isolated from <i>Trypanosoma cruzi</i> is Composed of Twelve Peptides Including a Heterodimeric Ip Subunit	J. Biol. Chem.	284	7255-7263	2009
Osanai, A., Harada, S., Sakamoto, K., Shimizu, H., Inaoka, D. K., and Kita, K.	Crystallization of mitochondrial rhodoquinol-fumarate reductase from the parasitic nematode <i>Ascaris suum</i> with specific inhibitor, flutolanil.	Acta Crystallographica,	F65,	941-944	2009
Mogi, T. and Kita, K.	Identification of mitochondrial Complex II subunits SDH3 and SDH4 and ATP synthase subunits <i>a</i> and <i>b</i> in <i>Plasmodium</i> spp.	Mitochondrion,	9	443-453	2009
Matoba, K., Nara, T., Aoki, T., Honma, T., Tanaka, A., Inoue, M., Matsuoka, S., Inaoka, D.K., Kita, K. and Harada, S.	Crystallization and preliminary X-ray analysis of aspartate transcarbamoylase from the parasitic protist <i>Trypanosoma cruzi</i> .	Acta Crystallographica,	F65,	933-936	2009
Maréchal, A., Kido, Y., Kita, K. Moore, A. and Rich, P.	Three redox states of <i>Trypanosoma brucei</i> alternative oxidase identified by infrared spectroscopy and electrochemistry.	J. Biol. Chem.	284,	31827-31833	2009
Sano-Maeda, K., Sato, S., Ueda, T., Yui, R., Itoh, K., Hata, M., Nakano, A., Kita, K., Murakami-Murofushi, K. and Sasaki, N.	Visualization of mitochondrial and apicoplast nucleoids in the human malaria parasite <i>Plasmodium falciparum</i> by SYBR Green I and PicoGreen staining.	Cytologia,			in press

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Kido, Y., Shiba, T., Inaoka, D. K., Sakamoto, K., Nara, K., Aoki, T., Honma, T., Tanaka, A., Inoue, M., Matsuoka, S., Moore, A., Harada, S. and Kita, K.	Crystallization and preliminary crystallographic analysis of cyanide-insensitive alternative oxidase from <i>Trypanosoma brucei brucei</i>	Acta Crystallographica		F65, 933-936	印刷中
Hikosaka, K., Watanabe, Y., Tsuji, N., Kita, K., Kishine, H., Arisue, N., Palacpac, N. M. Q., Kawazu, S., Sawai, H., Horii, T., Igarashi, I. and Tanabe, K.	Divergence of mitochondrial genome structure in the apicomplexan parasites, <i>Babesia</i> and <i>Theileria</i> .	Mol. Biol. Evolution			in press
Balogun, O. E., Inaoka, D. K., Kido, Y., Shiba, T., Nara, T., Aoki, T., Honma, T., Tanaka, A., Inoue, M., Matsuoka, S., Michels, P. AM., Harada, S. and Kita, K.	Overproduction, purification, crystallization and preliminary X-ray diffraction analysis of <i>Trypanosoma brucei gambiense</i> glycerol kinase.	Acta Crystallographica			in press
Kido, Y., Sakamoto, K., Nakamura, K., Harada, M., Suzuki, T., Yabu, Y., Saimoto, H., Yamakura, F., Ohmori, D., Moore, A., Harada, S. and Kita, K.	Purification and kinetic characterization of recombinant alternative oxidase from <i>Trypanosoma brucei brucei</i> .	Biochim Biophys. Acta (Bioenergetics)	1797	443-450	2010
Sasaki, N., Hirai, M., Maeda, K., Yui, R., Itoh, K., Namiki, S., Morita, T., Hata, M., Murakami-Murofushi, K., Matsuoka, H., Kita, K., Sato, S.	The <i>Plasmodium</i> HU homolog, which binds the plastid DNA sequence-independent manner, is essential for the parasite's survival.	FEBS Lett.	583	1446-1450	2009

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Potup P, Kumsiri R, Kano S, Kalambaheti T, Looareesuwan S, Troye-Blomberg M, Maneerat Y	Blood stage <i>Plasmodium falciparum</i> antigens induce immunoglobulin class switching in human enriched B cell culture.	Southeast Asian J Trop Med Public Health	40 (4)	651-664	2009
狩野繁之	マラリアの旅行医学	日本旅行医学 会学会誌	9	74-79	2008
Culleton R, Ndounga M, Zeyrek FY, Coban C, Casimiro PN, Takeo S, Tsuboi T, Yadava A, Carter R, Tanabe K	Evidence for the transmission of <i>Plasmodium vivax</i> in the Republic of the Congo, west central Africa	J Infect Dis.	200	1465-1469	2009
Takeo S, Hisamori D, Matsuda S, Vinetz J, Sattabongkot J, Tsuboi T	Enzymatic characterization of the <i>Plasmodium vivax</i> chitinase, a potential malaria transmission- blocking target	Parasitol Int.	58	243-248	2009
Otsuki H, Kaneko O, Thongkukiakul A, Tachibana M, Iriko H, Takeo S, Tsuboi T, Torii M	Single amino acid substitution in <i>Plasmodium yoelii</i> erythrocyte ligand determines its localization and controls parasite virulence	Proc Natl Acad Sci USA	106	7167-7172	2009
Husain, A., Jeelani, G., Sato, D., Ali, V., and Nozaki, T.	Characterization of two isotypes of L-threonine dehydratase from <i>Entamoeba histolytica</i> .	Mol. Biochem. Parasitol.	170	100-104	2010
Sato, D. and Nozaki, T.	Methionine gamma-lyase: the unique reaction mechanism, physiological roles, and therapeutic applications against infectious diseases and cancers.	IUBMB Life	61	1019-1028	2009

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Takagi H, Itoh M, Islam MZ, Razzaque A, Saiffudin Ekram ARM, Hashiguchi Y, Noiri E, Kimura E.	Sensitive, specific and rapid detection of <i>Leishmania donovani</i> DNA by loop-mediated isothermal amplification.	American Journal of Tropical Medicine and Hygiene	81(4)	578-582	2009
Yamaji K, Tsuji N, Miyoshi T, Islam MK, Hatta T, Alim MA, Anisuzzaman, Takenaka A, Fujisaki K.	Hemoglobinase activity of a cysteine protease from the ixodid tick <i>Haemaphysalis longicornis</i> .	Parasitology International	58	232-237.	2009
Yamaji K, Tsuji N, Miyoshi T, Islam MK, Hatta T, Alim MA, Anisuzzaman M, Kushibiki S, Fujisaki K.	A salivary cystatin, HISC-1, from the ixodid tick <i>Haemaphysalis longicornis</i> play roles in the blood-feeding processes.	Parasitology Research	106	61-68.	2009
Anyan WK, Kumagai T, Shimogawara RF, Seki T, Ohta N et al.	Schistosome eggs have a direct role for induction of basophils capable of high level of IL-4 production: Comparative study of single- and bisexual infection of <i>Schistosoma mansoni</i> in vivo	Trop Med Health,			2010 (In press)
Osada Y, Kanazawa T.	Parasitic helminths: New weapons against immunological disorders	<i>J Biomed Biotechnol</i>	Special Issue Vol.2010	未定	2010 (in press)
Wagatsuma Y, Alam MS, Fukushima M, Islam MZ, Itoh M, Mondal D and Haque R.	Neem extract as a control tool for vector-borne diseases: an example of visceral leishmaniasis in Bangladesh	Biopesticides International	5(2)	134-140	2009
Fukushige M, Alam MS, Haque R, <u>Wagatsuma Y</u>	Acceptance for neem oil as a visceral leishmaniasis vector control	Biopesticides International	5(2)	141-147	2009

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Cao J, Kaneko O, Thongkukiatkul A, Tachibana M, Otsuki H, Gao Q, Tsuboi T, Torii M.	Rhoptry neck protein RON2 forms a complex with microneme protein AMA1 in <i>Plasmodium falciparum</i> merozoites.	Parasitol Int	58(1)	29-35	2009
Iriko H, Jin L, Kaneko O, Takeo S, Han ET, Tachibana M, Otsuki H, Torii M, Tsuboi T.	A small-scale systematic analysis of alternative splicing in <i>Plasmodium falciparum</i> .	Parasitol. Int	58(2)	196-199	2009
Otsuki H, Kaneko O, Thongkukiatkul A, Tachibana M, Iriko H, Takeo S, Tsuboi T, Torii M.	Single amino acid substitution in <i>Plasmodium yoelii</i> erythrocyte ligand determines its localization and controls parasite virulence.	Proc Natl Acad Sci USA.	106	7167-7172	2009,
Arakawa T, Tachibana M, Miyata T, Harakuni T, Kohama H, Matsumoto Y, Tsujii N, Hisaeda H, Stowers A, Torii M, Tsuboi T.	Malaria ookinete surface protein-based vaccination via the intranasal route completely blocks parasite transmission in both passive and active vaccination regimens in a rodent model of malaria infection.	Infect Immun	77(12)	5496-5500	2009
Imamura M, Tsuboi H, Yasuda K, Uchiyama R, Yumikura-Futatsugi S, Mitani K, Hayashi S, Akira S, Taniguchi S, Van Rooijen N, Tschopp J, Yamamoto T, Fujimoto J, <u>Nakaniishi K.</u>	Contribution of TLR domain-containing adapter inducing IFN-beta-mediated IL-18 release to LPS-induced liver injury in mice.	J Hepatol	51	333-341	2009

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Yoshimoto T, Yasuda K, Tanaka H, Nakahira M, Imai Y, Fujimori Y, <u>Nakanishi K.</u>	Basophils contribute to TH2-IgE responses in vivo via IL-4 production and presentation of peptide-MHC class II complexes to CD4 ⁺ T cells.	Nat Immunol	10	706-712	2009
Harada M, Obara K, Hirota T, Yoshimoto T, Hitomi Y, Sakashita M, Doi S, Miyatake A, Fujita K, Enomoto T, Taniguchi M, Higashi N, Fukutomi Y, Nakanishi K, Nakamura Y, Tamari M.	A functional polymorphism in IL-18 is associated with severity of bronchial asthma.	Am J Respir Crit Care Med	180	1048-1055	2009
Tu L, et al	Critical role for immunoproteasome subunit LMP7 in the resistance of mice to <i>Toxoplasma gondii</i> infection	Eur. J. Immunol	39	3385-3394	2009
Tetsutani K, et al	Concurrent infection with <i>Heligmosomoides polygyrus</i> suppresses anti- <i>Plasmodium yoelii</i> protection partially by induction of CD4 ⁺ CD25 ⁺ Foxp3 ⁺ Treg in mice	Eur. J. Immunol	39	2822-2830	2009
Duan X, et al	Efficient protective immunity against <i>Trypanosoma cruzi</i> infection after nasal vaccination with recombinant Sendai virus vector expressing amastigote surface protein-2	Vaccine	27	6154-6159	2009

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Cao J, Kaneko O , Gao Q, Zhou HY, Xia CM, Zhuge HX, Tsuboi T, Torii M.	Transcription profile of PfRON4 gene in Plasmodium falciparum erythrocytic stage. (Chinese)	Zhongguo Ji Sheng Chong Xue Yu Ji Sheng Chong Bing Za Zhi.	27(3):	206-209	2009
Culleton R, Kaneko O	Erythrocyte binding ligands in malaria parasites: Intracellular trafficking and parasite virulence.	Acta Tropica	(in press)		
Kumuraa, N., Furukawaa, H., Onyangob, A., Izumia, M., Nakajimaa, S., Ito, H., Hatano, T., Kim, H.-S., Wataya, Y. and Baba	Different Behavior of Artemisinin and Tetraoxane in the Oxidative Degradation of Phospholipid.	Chemistry and Physics of Lipids	160	114-120	2009
Naito T, Yokogawa T, Takatori S, Goda K, Hiramoto A, Sato A, Kitade Y, Sasaki T, Matsuda A, Fukushima M, Wataya Y, Kim HS.	Role of RNase L in apoptosis induced by 1-(3-C-ethynyl-beta-D-ribo-pentofuranosyl) cytosine.	Cancer Chemother Pharmacol.,	63(5):	837-850,	2009
Kumura, N., Furukawa, H., Kobayashi, M., Onyango, A. N., Izumi, M., Nakajima, S., Kim, H.-S., Wataya, Y. and Baba, N.	Synthesis of novel conjugates of tetraoxane endoperoxide with bis (quaternary ammonium salts).	Biosci. Biotechnol. Biochem.,	73 (1),	217-220,	2009.
Jin, C., Kaewintajak, K., Jiang, J., Jeong, W., Kamata, M., Kim, H.-S., Wataya, Y. and Park, H.	Toxoplasma gondii: A simple high throughput assay for drug screening in vitro.	Exp. Parasitol.,	121	132-136	2009.
Sato, A., Satake, A., Hiramoto, A., Okamatsu, A., Nakama, K., Kim, H.-S. and Wataya, Y.	Association of nuclear-intermediate filament lamin B1 with necrotic- and apoptotic-morphologies in cell death induced by 5- fluoro-2'-deoxyuridine.	Nucleic Acids Sympo. Ser.,	53,	293-294,	2009
Wataya, Y., Naito, T., Sato, K., Hiramoto, A., Kitade, Y., Sasaki, T., Matsuda, A., Fukushima, M. and Kim, H.-S.	Molecular mechanism of apoptosis induced by 3'-Ethynylcytidine.	Nucleic Acids Sympo. Ser.,	53	291-292	2009

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Nakao R, Mizukami C, Kawamura Y, Subeki, Bawm S, Yamasaki Y, Maede Y, Matsuura H, Nabeta K, Nonaka N, Oku Y, <u>Katakura K</u>	Evaluation of efficacy of bruceine A, a natural quassinoid compound extracted from a medicinal plant, <i>Brucea javanica</i> , for canine babesiosis	<i>J Vet Med Sci</i>	71	33-41	2009
<u>Katakura K</u>	Molecular epidemiology of leishmaniasis in Asia (focus on cutaneous infections)	<i>Curr Opin Infect Dis</i>	22	126-130	2009
Bhutto AM, Soomro FR, Baloch JH, Matsumoto J, Uezato H, Hashiguchi Y, <u>Katakura K</u>	Cutaneous leishmaniasis caused by <i>Leishmania (L.) major</i> infection in Sindh province, Pakistan	<i>Acta Trop</i>	111	295-298	2009
Nonaka N, Sano T, Inoue T, Teresa Armua M, Fukui D, <u>Katakura K</u> , Oku Y	Multiplex PCR system for identifying the carnivore origins of faeces for an epidemiological study on <i>Echinococcus multilocularis</i> in Hokkaido, Japan	<i>Parasitol Res</i>	106	75-83	2009
Yamada K, Subeki, Nabeta K, Yamasaki M, <u>Katakura K</u> , Matsuura H	Isolation of anti-babesial compounds from <i>Brucea javanica</i> , <i>Curcuma xanthorrhiza</i> , and <i>Excoecaria cochinchinensis</i>	<i>Biosci Biotechnol Biochem</i>	73	776-780	2009
Bawm S, Tiwananthagorn S, Lin KS, Hirota J, Irie T, Htun LL, Maw NN, Myaing TT, Phay N, Miyazaki S, Sakurai T, Oku Y, Matsuura H, <u>Katakura K</u>	Evaluation of Myanmar medicinal plant extracts for antitrypanosomal and cytotoxic activities	<i>J Vet Med Sci</i>			In press

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Senba Y, Tsuda K, Maruyama H, Kurokawa I, Mizutani H, Taniguchi Y.	Case of creeping disease treated with ivermectin.	Journal of Dermatology	36	86-89	2009
Enko K, Tada T, Ohgo KO, Nagase S, Nakamura K, Ohta K, Ichiba S, Ujike Y, Nawa Y, Maruyama H, Ohe T, Kusano KF.	Fulminant eosinophilic myocarditis associated with visceral larva migrans caused by <i>Toxocara canis</i> infection.	Circulation Journal	73	1344-1348	2009
Altangerel K, Alhassan A, Iseki H, Sivakumar T, Boldbaatar D, Yokoyama N, Igarashi I.	Evaluation of <i>Babesia bigemina</i> 200 kDa recombinant antigen in enzyme-linked immunosorbent assay.	Parasitol Res.	105	249-254	2009
Ota H, Mizuno D, Kuboki N, Igarashi I, Nalamura Y, Yamashina H, Hanzaike T, Fujui K, Onoe S, Hata H, Kondo S, Matsui S, Koga M, Matsumoto K, Inokuma H, Yokoyama N.	Epidemiological survey of <i>Theileria orientalis</i> infection in grazing cattle in the eastern part of Hokkaido, Japan.	J Vet Med Sci.	71	937-944	2009
Aboulaila M, Nakamura K, Govind Y, Yokoyama N, Igarashi I.	Evaluation of the in vitro growth-inhibitory effect of epoxomicin on <i>Babesia</i> parasites	Vet Parasitol.	167	19-27	2010.
Aboulaila M, Yokoyama N, Igarashi I.	Inhibitory effects of (-)-Epigallocatechin-3-gallate from green tea on the growth of <i>Babesia</i> parasites.	Parasitology	オンライン掲載		2009.
Aboulaila M, Yokoyama N, Igarashi I.	Development and evaluation of a nested PCR based on spherical body protein 2 gene for the diagnosis of <i>Babesia bovis</i> infection.	Vet Parasitol.	オンライン掲載		2009
Ishikawa H, <u>Ohmae H.</u>	Modeling the dynamics and control of transmission of <i>Schistosoma japonicum</i> and <i>S. mekongi</i> in Southeast Asia.	<i>Korean J of Parasitol</i>	47:	1-5	2009
Kato-Hayashi N, Kirinoki M, Iwamura Y, Kanazawa T, Kitikoon V, Matsuda H, <u>Chigusa Y.</u>	Identification and differentiation of human schistosomiasis by PCR.	<i>Exp Parasitol.</i>	124:	324-329	2010

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Bao Y, Weiss L, Hashimoto M, <u>Nara T</u> , Huang H	Protein kinase A regulatory subunit interacts with P-type ATPases in <i>Trypanosoma cruzi</i>	<i>Am J Trop Med Hyg</i>	80 (6)	941-943	2009
Gurbadam A et al	Mongolian and Japanese Joint Congress on "Echinococcoses: diagnosis, treatment and prevention in Mongolia" June 4, 2009	<i>Parasites and Vectors</i>			2010 in press
Li TY et al	Specific IgG responses to recombinant antigen B and Em18 in cystic and alveolar echinococcosis in China	<i>Clinical and Vaccine Immunology</i>			2010 in press
Ito A et al	Histopathological, serological and molecular confirmation of alveolar echinococcosis cases in Mongolia	<i>American Journal of Tropical Medicine and Hygiene</i>			2010 in press
Li TY et al	Widespread co-endemicity of human cystic and alveolar echinococcosis on the eastern Tibetan plateau, northwest Sichuan/southeast Qinghai, China	<i>Acta Tropica</i>			2010 in press
Yanagida T et al	Anomalous segmentation of <i>Dipyllobothrium nihonkaiense</i>	<i>Parasitology International</i>			2010 in press
Yanagida T et al	Neurocysticercosis: assessing where the infection was acquired?	<i>Journal of Travel Medicine</i>			2010 in press
Nakao M et al	Genetic polymorphisms of <i>Echinococcus</i> tapeworms in China as determined by mitochondrial and nuclear DNA sequences	<i>International Journal for Parasitology</i>			2010 in press
Okamoto M et al	Evidence of hybridization between <i>Taenia saginata</i> and <i>Taenia asiatica</i>	<i>Parasitology International</i>			2010 in press
Shirakawa K et al	The wandering lesion: cerebral sparganosis	<i>Neurology</i>	74	180	2010
Wicht B et al	Inter- and intra-species characterization of tapeworms of the genus <i>Dipyllobothrium</i> (Cestoda: Dipyllobothriidae) from Switzerland, using nuclear and mitochondrial DNA targets	<i>Parasitology International</i>			2010 in press

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Knapp J et al	<i>Echinococcus vogeli</i> infection in a hunter, French Guyana	<i>Emerging Infectious Diseases</i>	15	2029-2031	2009
Nakao M et al.	Geographic pattern of genetic variation in the fox tapeworm <i>Echinococcus multilocularis</i>	<i>Parasitology International</i>	58	384-389	2009
Ishikawa Y et al.	Serological monitoring of progression of alveolar echinococcosis with multi-organ involvement using recombinant Em18	<i>Journal of Clinical Microbiology</i>	47	3191-3196	2009
Yang YR et al	Natural infection of the ground squirrel (<i>Spermophilus</i> spp) with <i>Echinococcus granulosus</i> in China	PLoS Neglected Tropical Diseases	3	E518	2009
Snabel V et al.	Cystic echinococcosis in Turkey: genetic variability and first record of the pig strain (G7) in the country	<i>Parasitology Research</i>	105	145-154	2009
Moro PL et al.	Molecular identification of <i>Echinococcus</i> isolates from Peru	<i>Parasitology International</i>	58	184-186	2009
Tappe D et al	Close Relationship between Clinical Regression and Specific Serology in the Follow-up of Patients with Alveolar Echinococcosis in Different Clinical Stages	<i>American Journal of Tropical Medicine and Hygiene</i>	80	792-797	2009
Nkouawa A et al.	Paragonimiasis in Cameroon: molecular identification, sero diagnosis and clinical manifestations	<i>Transactions of the Royal Society of Tropical Medicine and Hygiene</i>	103	255-261	2009
Nkouawa A et al.	Loop-mediated isothermal amplification method for differentiation and rapid detection of <i>Taenia</i> species	<i>Journal of Clinical Microbiology</i>	47	168-174	2009
Sako Y et al.	Development of an Immunochromatographic Test To Detect Antibodies against Recombinant Em18 for Diagnosis of Alveolar Echinococcosis	<i>Journal of Clinical Microbiology</i>	47	252-254	2009

書籍

著者氏名	論文タイトル名	書籍全体の編集者名	書籍名	出版社名	出版地	出版年	ページ
中西憲司	新しいアレルギーの概念	中西憲司, 山本一彦	アレルギー疾患の免疫機構 (実験医学、増刊号)	羊土社	東京	2009	12-17
安田好文 中西憲司	寄生虫感染時のサイトカイン動態	光山正雄, 北潔 野本明男	感染症 (実験医学、増刊号)	羊土社	東京	2009	225-231
善本知広 中西憲司	腸管寄生虫感染と宿主応答	木下タロウ 熊ノ郷淳 竹田潔 松浦善治 川端重忠	感染現象 (蛋白、核酸、酵素、増刊号)	共立出版	東京	2009	1066-1072
片倉 賢	リーシュマニア症	岸本寿男、 山田章雄 監修	ズーノーシスハンドブック	メディカルサイエンス社	東京	2009	115-117
丸山治彦	胆道寄生虫症	小川聡	内科学書 改訂第7版	中山書店	東京	2009	334-335
丸山治彦	鉤虫症 (十二指腸虫症)	山口徹、 北原光夫、 福井次矢	今日の治療指針 2010	医学書院	東京	2010	214-215
Okamoto M. and Ito A.	Purification of nucleic acids from helminthes.	Liu D.	Handbook of Nucleic Acid Purification	Taylor & Francis Group	London	271-291	2009
Ito A et al.	Chapter 62. Taeniasis	Liu D.	Molecular Detection of Foodborne Pathogens	Taylor & Francis Group	London	827-838	2009