

6. Department of Parasitology

Lee, Y. A., Nam, Y. H., Min, A., Kim, K. A., Nozaki, T., Saito-Nakano, Y., Mirelman, D., Shin, M.H. *Entamoeba histolytica*-secreted cysteine proteases induce IL-8 production in human mast cells via a PAR2-independent mechanism. *Parasite*. 21,1, 2014.

Chandra, M., Mukherjee, M., Srivastava, V.K., Saito-Nakano, Y., Nozaki, T., Datta, S. Insights into GTP/GDP cycle of RabX3, a novel GTPase from *Entamoeba histolytica* with tandem G-domains. *Biochemistry* 53, 1191-1205, 2014.

Hertz, R., Tovy, A., Kirschenbaum, M., Geffen, M., Nozaki, T., Adir, N., and Ankri, S. The *Entamoeba histolytica* Dnmt2 homolog (Ehmeth) confers resistance to nitrosative stress. *Eukaryot Cell*. 13, 494-503, 2014.

Jeelani, G. and Nozaki, T. Metabolomic analysis of *Entamoeba*: applications and implications. *Curr. Opin. Microbiol.* 20C:118-124, 2014.

Mukherjee, A. K., Chowdhury, P., Bhattacharya, M. K., Rajendran, K., Nozaki, T., and Ganguly, S. Association between *Giardia duodenalis* and co-infection with other diarrhea-causing pathogens in India. *BioMed Res Int*, Volume 2014, Article ID 786480.

Valdés, J., Nozaki, T., Sato, E., Chiba, Y., Nakada-Tsukui, K., Villegas-Sepúlveda, N., Winkler, R., Azuara-Liceaga, E., Mendoza-Figueroa, M. S., Watanabe, N., Santos, H. J., Saito-Nakano, Y., Galindo-Rosales, J. M. Proteomic analysis of *Entamoeba histolytica* in vivo assembled pre-mRNA splicing complexes. *J Proteomics*. 111:30-45, 2014.

Oki, M., Asai, S., Saito-Nakano, Y., Nakayama, T., Tanaka, Y., Tachibana, H., Ohmae, H., Nozaki, T. and Miyachi, H. A case of quadruple malaria infection imported from Mozambique to Japan. *Am. J. Trop. Med. Hyg.* 90, 1098-1101, 2014.

Anwar, S., Dikhit, M. R., Singh, K. P., Kar, R. K., Zaidi, A., Sahoo, G. C., Roy, A. K., Nozaki, T., Das, P., and Ali, V. Interaction between Nbp35 and Cfd1 proteins of cytosolic Fe-S cluster assembly reveals a stable complex formation

in *Entamoeba histolytica*. *PLoS One* 9, e108971, 2014.

Jeelani, G., Sato, D., Soga, T., Watanabe, H., Nozaki, T. Mass Spectrometric analysis of L-cysteine metabolism: physiological role and fate of L-cysteine in the enteric protozoan parasite *Entamoeba histolytica*. *MBio*. 2014 Nov 4;5(6), e01995.

Itoh, K., Yagita, K., Nozaki, T., Katano, H., Hasegawa, H., Matsuo, K., Hosokawa, Y., Tando, S., Fushiki, S. An autopsy case of *Balamuthia mandrillaris* amoebic encephalitis, a rare emerging infectious disease, with a brief review of the cases reported in Japan. *Neuropathology*. 35(1):64-9, 2015.

Lee, Y. A., Saito-Nakano, Y., Kim, K. A., Min, A., Nozaki, T., Shin, M. H. Modulation of endogenous cysteine protease inhibitor (ICP) 1 expression in *Entamoeba histolytica* affects amoebic adhesion to extracellular matrix proteins. *Exp Parasitol.* 149C:7-15, 2014.

Emmanuel, M., Saito-Nakano, Y., Nozaki, T., and Datta, S. Small GTPase Rab21 mediates Fibronectin induced actin reorganization in *Entamoeba histolytica*: implications in pathogen invasion. *PLoS Pathog* 11(3):e1004666, 2015.

Santos, H. J.,*, Imai, K.,*, Makiuchi, T., Tomii, K., Horton, P., Nozawa, A., Ibrahim, M., Tozawa, Y., and Nozaki, T. A novel mitosomal β -barrel outer membrane protein in *Entamoeba*. *Sci Rep* 5:8545, 2015. (* equal contribution)

Penuliar, G. M., Nakada-Tsukui, K., and Nozaki, T. Phenotypic and transcriptional profiling in *Entamoeba histolytica* reveal costs to fitness and adaptive responses associated with metronidazole resistance. “Antimicrobials, Resistance and Chemotherapy”, *Front Microbiol*, 6:354, 2015.

Picazarri, K.,* Nakada-Tsukui, K.,* Tsuboi, K., Miyamoto, E., Watanabe, N., Kawakami, E., and Nozaki, T. Atg8 is involved in endosomal and phagosomal acidification in the parasitic protist *Entamoeba histolytica*. *Cell Microbiol* 17, 1510-1522, 2015 (* equal contribution) doi: 10.1111/cmi.12453

Mi-ichi, F.,# Miyamoto, T., Takao, S., Jeelani, G., Hashimoto, T., Hara, H., Nozaki, T.,# and Yoshida, H. *Entamoeba* mitosomes play an important role in

- encystation by association with cholesteryl sulfate synthesis. Proc Natl Acad Sci USA 112(22):E2884-90, 2015. d (# correspondence).
- Takeuchi, F., Sekizuka, T., Ogasawara, Y., Yokoyama, H., Kamikawa, R., Inagaki, Y., Nozaki, T., Sugita-Konishi, T., Ohnishi, T., and Kuroda, M. The mitochondrial genomes of a myxozoan genus *Kudoa* are extremely divergent in Metazoa. PLoS ONE 10(7):e0132030, 2015.
- Takeuchi, F., Ogasawara, Y., Kato, K., Sekizuka, T., Nozaki, T., Sugita-Konishi, Y., Ohnishi, T., and Kuroda, M. Development of nucleotide sequence typing for *Kudoa septempunctata*, a flounder parasite causing foodborne disease. J Fish Dis. 2015. In press
- Mishra, V., Kumar, A., Ali, V., Zhang, K.Y., and Nozaki, T.. Characterization of pH-induced transitions of *Entamoeba histolytica* D-phosphoglycerate dehydrogenase. Int J Biol Macromol. 2015 79:284-289.
- Verma, K., Saito-Nakano, Y., Nozaki, T., and Datta, S. Insights into endosomal maturation of human holo-transferrin in the enteric parasite *Entamoeba histolytica*: essential roles of Rab7A and Rab5 in biogenesis of giant early endocytic vacuoles. Cell Microbiol. 2015 in press.
- Mori, M., Jeelani, G., Masuda, Y., Sakai, K., Nakada-Tsukui, K., Waluyo, D., Tarwadi, Watanabe, Y., Nonaka, K., Matsumoto, A., Omura, S., Nozaki, T.#, and Shiomi, K.# Identification of natural inhibitors of *Entamoeba histolytica* cysteine synthase from microbial secondary metabolites. Front Microbiol. 6, 962, 2015. (# correspondence)
- Chiba, Y., Kamikawa, R., Nakada-Tsukui, K., Saito-Nakano, Y., and Nozaki, T.. Discovery of PPi-type phosphoenolpyruvate carboxykinase genes in eukaryotes and bacteria. J Biol Chem 290, 23960-70, 2015.
- Mi-ichi, F.* Nozawa, A.* Yoshida, H., Tozawa, Y.#, Nozaki, T.# Evidence that *Entamoeba histolytica* mitochondrial carrier family links mitosomal and cytosolic pathways through exchange of PAPS and ATP. Eukaryot Cell 2015 in press (*Equal first authors; #Double correspondence)
- Sampo A, Matsuo J, Yamane C, Yagita K., Nakamura S, Shouji N, Hayashi Y, Yamazaki T, Yoshida M, Kobayashi M, Ishida K and Yamaguchi H. High-temperature adapted primitive *Protochlamydia* found in Acanthamoeba isolated from a hot spring can grow in immortalized human epithelial HEp-2 cells. Environ. Microbiol., 16(2):486-497, 2014
- Marumo K, Nakada-Tsukui K., Tomii K, Nozaki T. Ligand heterogeneity of the cysteine protease binding protein family in the parasitic protist *Entamoeba histolytica*. Int. J. Parasitol. 44(9):625-35,2014.
- Matsuo, K., Kamai, R., Uetsu, H., Goto, H., Takashima, Y., and Nagamune, K. Seroprevalence of *Toxoplasma gondii* infection in cattle, horses, pigs and chickens in Japan. Parasitol. Int. 63(4): 638-639, 2014
- Takeshima, K., Sato, K., Nabekura, T., Nagamune, K., Hamada, H., Yoshikawa, H., Shibuya, A., shibuya, K. Increased CD11b+ Gr-1+ cell population in the placenta after infection with *Toxoplasma gondii*. Microbiol. Immunol. 59(2): 95-98, 2015
- van Schaijk BC, Ploemen IH, Annoura T., Vos MW, Foquet L, van Gemert GJ, Chevalley-Maurel S, van de Vegte-Bolmer M, Sajid M, Franetich JF, Lorthiois A, Leroux-Roels G, Meuleman P, Hermsen CC, Mazier D, Hoffman SL, Janse CJ, Khan SM, Sauerwein RW. A genetically attenuated malaria vaccine candidate based on *P. falciparum* b9/slarp gene-deficient sporozoites. Elife. 2014 Nov 19;3:e03582, 2014
- Lin JW, Shaw TN, Annoura T., Fougère A, Bouchier P, Chevalley-Maurel S, Kroese H, Franke-Fayard B, Janse CJ, Couper KN, Khan SM. The Subcellular Location of Ovalbumin in Plasmodium berghei Blood Stages Influences the Magnitude of T-Cell Responses. Infection and Immunity. Nov;82(11):4654-65, 2014.
- Yamasaki H., Nakamura T., Intapan P.M., Maleewong W., Morishima Y., Sugiyama H., Matsuoka H., Kobayashi K., Takayama K., Kobayashi Y. Development of a rapid diagnostic kit that uses an immunochromatographic device to detect antibodies in human sparganosis. Clin. Vaccine Immunol., 21: 1360-1363, 2014.

Yamasaki H., Arakawa K., Ohashi T., Yagita K., Morishima Y., Sugiyama H., Nagamune K., Kakinuma M., Yosada Y.,

Oushiki D., Hasegawa A. Development of a tool for evaluating the risk of health damage by meat-borne parasite infection. Food Safety 2: 151-159, 2014.

Chen S., Ai L., Zhang Y., Chen J., Zhang W., Li Y., Muto M.,

Morishima Y., Sugiyama H., Xu X., Zhou X., Yamasaki H. Molecular detection of *Diphyllobothrium nihonkaiense* in humans, China. Emerg. Infect. Dis., 20:315-318, 2014.

Thanchomnang T., Tantrawatpan C., Intapan P.M., Sanpool O.,

Janwan P., Lultitanond V., Tourtip S., Yamasaki H., Maleewong W. Rapid molecular identification of human taeniid cestodes by pyrosequencing approach. PLoS One 9: e100611, 2014.

Boonyasiri A., Cheunsuchon P., Suputtamongkol Y.,

Yamasaki H., Sanpool O., Maleewong W., Intapan P.M. Nine human sparganosis cases in Thailand with molecular identification of causative parasite species. Am. J. Trop. Med. Hyg., 91: 389-393, 2014.

Saenseeha S., Janwan P., Yamasaki H., Laummaunwai P.,

Tayapiwatana C., Kitkhuandee A., Maleewong W. Intapan P.M. A dot-ELISA test using a *Gnathostoma spinigerum* recombinant matrix metalloproteinase protein for the serodiagnosis of human gnathostomiasis. Southeast Asian J. Trop. Med. Public Health. 45: 990-996, 2014.

Makino, T., Mori, N., Sugiyama, H., Mizawa, M., Seki, Y.,

Kagoyama, K., Shimizu, T. Creeping eruption due to Spirurina type X larva. Lancet, 384: 2082, 2014

Calvopina, M., Romero, D., Castaneda, B., Hashiguchi, Y.,

Sugiyama, H. Current status of *Paragonimus* and paragonimiasis in Ecuador. Mem. Inst. Oswaldo Cruz, 109: 849-855, 2014

Singh, T.S., Sugiyama, H., Lepcha, C. Massive pleural

effusion due to paragonimiasis: biochemical, cytological and parasitological findings. Ind. J. Pathol. Microbiol., 57: 492-494, 2014

Takeda, M., Sugiyama, H., Calvopina, M., Romero, D. Some

freshwater crabs from Ecuador, South America. J. Teikyo Heisei Univ., 25: 1-13, 2014