

2. Department of Virology II

- 1) Agbemabiese CA, Nakagomi T, Doan YH, Do LP, Damanka S, Armah GE, Nakagomi O. Genomic constellation and evolution of Ghanaian G2P[4] rotavirus strains from a global perspective. *Infect Genet Evol.* 2016;45: 122-131, 2016
- 2) Ahmed SR, Takemeura K, Li TC, Kitamoto N, Tanaka T, Suzuki T, Park EY. Size-controlled preparation of peroxidase-like graphene-gold nanoparticle hybrids for the visible detection of norovirus-like particles. *Biosensors and Bioelectronics.* 2017 Jan 15;87:558-565.
- 3) Aly HH, Suzuki J, Watashi K, Chayama K, Hoshino S, Hijikata M, Kato T, Wakita T. RNA Exosome Complex Regulates Stability of the Hepatitis B Virus X-mRNA Transcript in a Non-stop-mediated (NSD) RNA Quality Control Mechanism. *J Biol Chem.* 2016 Jul 29;291(31):15958-74.
- 4) Arita M. Poliovirus studies in the endgame of the polio eradication program. *Japanese Journal of Infectious Diseases*, Jan 24;70: 1-6, 2017
- 5) Chen CL, Huang JY, Wang CH, Tahara SM, Zhou L, Kondo Y, Schechter J, Su L, Lai MM, Wakita T, Cosset FL, Jung JU, Machida K. Hepatitis C virus has a genetically determined lymphotropism through co-receptor B7.2. *Nat Commun.* 2017 Jan 9;8:13882.
- 6) Dahanayaka N., Kiyohara T., Agampodi S., Samaraweera P., Kulasooriya G., Ranasinghe J., Semage S., Yoshizaki S., Wakita T and Ishii K. Clinical features and transmission pattern of hepatitis A: an experience from a hepatitis A outbreak caused by two co-circulating genotypes in Sri Lanka. *Am J Trop Med Hyg.* 2016 Oct 5;95(4):908-914.
- 7) Do LP, Doan YH, Nakagomi T, Kaneko M, Gauchan P, Ngo CT, Nguyen MB, Yamashiro T, Dang AD, Nakagomi O. Molecular characterisation of wild-type G1P[8] and G3P[8] rotaviruses isolated in Vietnam 2008 during a vaccine trial. *Arch Virol* 161:833-50, 2016
- 8) Doan YH, Haga K, Fujimoto A, Fujii Y, Takai-Todaka R, Oka T, Kimura H, Yoshizumi S, Shigemoto N, Okamoto-Nakagawa R, Shirabe K, Shinomiya H, Sakon N, Katayama K. Genetic analysis of human rotavirus C: The appearance of Indian-Bangladeshi strain in Far East Asian countries. *Infect Genet Evol.* 2016 Jul;41:160-173.
- 9) Ettayebi K, Crawford SE, Murakami K, Broughman JR, Karandikar U, Tenge VR, Neill FH, Blutt SE, Zeng XL, Qu L, Kou B, Opekun AR, Burrin D, Graham DY, Ramani S, Atmar RL, Estes MK. Replication of human noroviruses in stem cell-derived human enteroids. *Science*, 2016 Sep 23;353(6306):1387-1393
- 10) Haga K, Fujimoto A, Takai-Todaka R, Miki M, Doan YH, Murakami K, Yokoyama M, Murata K, Nakanishi A, Katayama K. Functional receptor molecules CD300lf and CD300ld enable murine norovirus to internalize into host cells. *Proc Natl Acad Sci U S A* 2016 Oct 11;113(41):E6248-E6255
- 11) Inoue T, Hmwe SS, Shimada N, Kato K, Ide T, Torimura T, Kumada T, Toyoda H, Tsubota A, Takaguchi K, Wakita T, Tanaka Y. Clinical Significance of Two Real-Time PCR Assays for Chronic Hepatitis C Patients Receiving Protease Inhibitor-Based Therapy. *PLoS One.* 2017 Jan 24;12(1):e0170667.
- 12) Iritani N, Yamamoto SP, Abe N, Kubo H, Oka T, Kaida A. Epidemics of GI.2 sapovirus in gastroenteritis outbreaks during 2012-2013 in Osaka City, Japan. *J Med Virol.* 2016; 88:1187-93.
- 13) Kai Y, Hikita H, Morishita N, Murai K, Nakabori T, Iio S, Hagiwara H, Imai Y, Tamura S, Tsutsui S, Naito M, Nishiuchi M, Kondo Y, Kato T, Suemizu H, Yamada R, Oze T, Yakushijin T, Hiramatsu N, Sakamori R, Tatsumi T, Takehara T. Baseline quasispecies selection and novel mutations contribute to emerging resistance-associated substitutions in hepatitis C virus after direct-acting antiviral treatment. *Sci Rep.* 2017 Jan 30;7:41660.
- 14) Kaneko S, Kakinuma S, Asahina Y, Kamiya A, Miyoshi M, Tsunoda T, Nitta S, Asano Y, Nagata H,

- Otani S, Kawai-Kitahata F, Murakawa M, Itsui Y, Nakagawa M, Azuma S, Nakauchi H, Nishitsuji H, Ujino S, Shimotohno K, Iwamoto M, Watashi K, Wakita T, Watanabe M. Human induced pluripotent stem cell-derived hepatic cell lines as a new model for host interaction with hepatitis B virus. *Sci Rep.* 2016 Jul 8;6:29358.
- 15) Karandikar UC, Crawford SE, Ajami NJ, Murakami K, Kou B, Ettayebi K, Papanicolaou GA, Jongwutiwes U, Perales MA, Shia J, Mercer D, Finegold MJ, Vinjé J, Atmar RL, Estes MK. Detection of human norovirus in intestinal biopsies from immunocompromised transplant patients. *J Gen Virol.* 97(9): 2291-2300 (2016)
- 16) Kimura K, Fukushima T, Katada N, Shimizu H, Nakamura T, Fujimoto T, Hanaoka N, Tanaka-Taya K, Makino K. Adult Case of Acute Flaccid Paralysis with Enterovirus D68 Detected in the CSF. *Neurology: Clinical Practice.* <http://cp.neurology.org/content/early/2016/11/04/C PJ.0000000000000311.short>, 2016
- 17) Kinoshita W, Ogura N, Watashi K, Wakita T. Host factor PRPF31 is involved in cccDNA production in HBV-replicating cells. *Biochem Biophys Res Commun.* 2017 Jan 22;482(4):638-644.
- 18) Koizumi Y, Ohashi H, Nakajima S, Tanaka Y, Wakita T, Perelson AS, Iwami S, Watashi K. Quantifying antiviral activity optimizes drug combinations against hepatitis C virus infection. *Proc Natl Acad Sci U S A.* 2017 Feb 21;114(8):1922-1927.
- 19) Lee EM, Alsagheir A, Wu X, Hammack C, McLauchlan J, Watanabe N, Wakita T, Kneteman NM, Douglas DN, Tang H. Hepatitis C Virus-Induced Degradation of Cell Death-Inducing DFFA-Like Effector B Leads to Hepatic Lipid Dysregulation. *J Virol.* 2016 Mar 28;90(8):4174-85.
- 20) Leong CR, Funami K, Oshiumi H, Mengao D, Takaki H, Matsumoto M, Aly HH, Watashi K, Chayama K, Seya T. Interferon-stimulated gene of 20 kDa protein (ISG20) degrades RNA of Hepatitis B virus to impede the replication of HBV in vitro and in vivo. *Oncotarget.* 7(42):68179-68193, 2016.
- 21) Li T.C., Yang T., Yoshizaki S., Ami Y., Suzaki Y., Ishii K, Kishida N., Shirakura M., Asanuma H., Takeda N. and Wakita T. Ferret Hepatitis E Virus Infection Induces Acute Hepatitis and Persistent Infection in Ferrets. *Veterinary Microbiology*, 183: 30-36 (2016)
- 22) Li TC, Zhou X, Yoshizaki S, Ami Y, Suzaki Y, Nakamura T, Takeda N, Wakita T. Production of Infectious Dromedary Camel Hepatitis E Virus by a Reverse Genetic System: Potential for Zoonotic Infection. *J Hepatol.* 2016 Dec;65(6):1104-1111.
- 23) Matsumura T, Sugiyama N, Murayama A, Yamada N, Shiina M, Asabe S, Wakita T, Imawari M, Kato T. Antimicrobial peptide LL-37 attenuates infection of hepatitis C virus. *Hepatol Res.* 2016 Aug;46(9):924-32.
- 24) Miyoshi M., Kakinuma S., Tanabe Y., Ishii K, Li T.C., Wakita T, Tsuura Y., Watanabe H., Asahina Y., Watanabe M. and Ikeda T. A Case of Chronic Hepatitis E Infection in a Persistently Immunosuppressed Patient Unable to be Eliminated after Ribavirin Therapy. *Internal Medicine*, 55: 2811-2817 (2016)
- 25) Motoya T., Nagata N., Komori H., Doi I., Kurosawa M., Keta T., Sasaki N and Ishii K. The high prevalence of hepatitis E virus infection in wild boars in Ibaraki Prefecture, Japanese Journal of Veterinary Medical Science, 77: 1705-1709 (2016)
- 26) Murayama A, Sugiyama N, Suzuki R, Moriyama M, Nakamura N, Mochizuki H, Wakita T, Kato T. Amino Acid Mutations in the NS4A Region of Hepatitis C Virus Contribute to Viral Replication and Infectious Virus Production. *J Virol.* 2017 Jan 31;91(4). pii: e02124-16.
- 27) Murayama A, Sugiyama N, Wakita T, Kato T. Completion of the Entire Hepatitis C Virus Life

- Cycle in Vero Cells Derived from Monkey Kidney. MBio. 2016 Jun 14;7(3). pii: e00273-16.
- 28) Nakagomi T, Do LP, Agbemabiese CA, Kaneko M, Gauchan P, Doan YH, Jere KC, Steele AD, Iturriza-Gomara M, Nakagomi O, Cunliffe NA. Whole-genome characterisation of G12P[6] rotavirus strains possessing two distinct genotype constellations co-circulating in Blantyre, Malawi, 2008. Arch Virol 162: 213-226, 2017
- 29) Nakajima S, Watashi K, Ohashi H, Kamisuki S, Izaguirre-Carbonell J, Kwon AT, Suzuki H, Kataoka M, Tsukuda S, Okada M, Moi ML, Takeuchi T, Arita M, Suzuki R, Aizaki H, Kato T, Suzuki T, Hasegawa H, Takasaki T, Sugawara F, Wakita T. Fungus-Derived Neoechinulin B as a Novel Antagonist of Liver X Receptor, Identified by Chemical Genetics Using a Hepatitis C Virus Cell Culture System. J Virol. 90: 9058-74. doi: 10.1128/JVI.00856-16, 2016.
- 30) Nitta S, Asahina Y, Matsuda M, Yamada N, Sugiyama R, Masaki T, Suzuki R, Kato N, Watanabe M, Wakita T, Kato T. Effects of Resistance-Associated NS5A Mutations in Hepatitis C Virus on Viral Production and Susceptibility to Antiviral Reagents. Sci Rep. 6: 34652. doi: 10.1038/srep34652, 2016.
- 31) Noguchi A, Ito H, Miura S, Fujii Y, Katayama K, Nakagomi T, Nakagomi O, Takahashi T.: Regional Variations in the Incidence of Rotavirus Hospitalizations between Children Living in Defined regions of Akita and Kyoto Prefectures, Japan. Jpn J Infect Dis. 2017, 70: 167-170.
- 32) Ohba M, Oka T, Ando T, Arahata S, Ikegaya A, Takagi H, Ogo N, Owada K, Kawamori F, Wang Q, Saif LJ, Asai A. Discovery and Synthesis of Heterocyclic Carboxamide Derivatives as Potent Anti-norovirus Agents. Chem Pharm Bull (Tokyo). 2016 May; 64:465-75.
- 33) Oka T, Doan YH, Haga K, Mori K, Ogawa T, Yamazaki A. Genetic Characterization of Rare Genotype GII.5 Sapovirus Strain Detected from a Suspected Food-Borne Gastroenteritis Outbreak among Adults in Japan in 2010. Jpn J Infect Dis 70: 223-224, 2017
- 34) Oka T, Lu Z, Phan T, Delwart EL, Saif LJ, Wang Q. Genetic Characterization and Classification of Human and Animal Sapoviruses. PLoS One. 2016 May. 26;11:e0156373.
- 35) Oka T, Doan YH, Haga K, Mori K, Ogawa T, Yamazaki A. Genetic characterization of rare genotype GII.5 sapovirus strain detected from food-borne suspected gastroenteritis outbreak among adults in Japan, 2010. Jpn J Infect Dis. 2017 Mar 24;70(2):223-224.
- 36) Okamura H, Nio Y, Akahori Y, Kim S, Watashi K, Wakita T, Hijikata M. Fatty acid biosynthesis is involved in the production of hepatitis B virus particles. Biochem Biophys Res Commun. 2016 Jun 17;475(1):87-92.
- 37) Qu L, Murakami K, Broughman JR, Lay MK, Guix S, Tenge VR, Atmar RL, Estes MK. Replication of Human Norovirus RNA in Mammalian Cells Reveals Lack of Interferon Response. J Virol, 90(19): 8906-8923 (2016)
- 38) Puig-Basagoiti F, Fukuhara T, Tamura T, Ono C, Uemura K, Kawachi Y, Yamamoto S, Mori H, Kurihara T, Okamoto T, Aizaki H, Matsuura Y. Human Cathelicidin Compensates for the Role of Apolipoproteins in Hepatitis C Virus Infectious Particle Formation. J Virol. 2016 Sep 12;90(19):8464-77.
- 39) Ricco G, Bonino F, Lanza M, Scatena F, Alfieri CM, Messa P, Marchisio E, Mascolo G, Romanò L, Galli C, Li TC, Wakita T, Miyamura T, Brunetto MR. New immunoassays for total, IgA and IgM antibodies against hepatitis E virus:Prevalence in Italian blood donors and patients with chronic liver or kidney diseases. Dig Liver Dis. 2016 May;48(5):536-41.

- 40) Ruchusatsawat K., Wongpiyabovorn J., Kawidam C., Thiemsing L., Sangkitporn S., Yoshizaki S., Tatsumi M., Takeda N. and Ishii K.. An Outbreak of Acute Hepatitis Caused by Genotype IB Hepatitis A Viruses Contaminating the Water Supply in Thailand. *Intervirology* 59: 197-203 (2017)
- 41) Saga R, Fujimoto A, Watanabe N, Matsuda M, Hasegawa M, Watashi K, Aizaki H, Nakamura N, Tajima S, Takasaki T, Konishi E, Kato T, Kohara M, Takeyama H, Wakita T, Suzuki R. Bivalent vaccine platform based on Japanese encephalitis virus (JEV) elicits neutralizing antibodies against JEV and hepatitis C virus. *Sci Rep*. 2016 Jun 27;6:28688.
- 42) Sato H, Yokoyama M, Nakamura H, Oka T, Katayama K, Takeda N, Noda M, Tanaka T, Motomura K. Evolutionary Constraints on the Norovirus Pandemic Variant GII.4_2006b over the Five-Year Persistence in Japan. *Front Microbiol*. 2017 Mar 13;8:410.
- 43) Shimizu H. Development and introduction of inactivated poliovirus vaccines derived from Sabin strains in Japan. *Vaccine* 34: 1975-1985, 2016
- 44) Shimizu K, Hamaguchi S, Ngo CC, Li TC, Ando S, Yoshimatsu K, Yasuda SP, Koma T, Isozumi R, Tsuda Y, Fujita H, Pham TT, LE MQ, Dang AD, Nguyen TQ, Yoshida LM, Ariyoshi K, Arikawa J. Serological evidence of infection with rodent-borne hepatitis E virus HEV-C1 or antigenically related virus in humans. *J Vet Med Sci*. 2016; 78: 1677-1681.
- 45) Shirasago Y, Shimizu Y, Tanida I, Suzuki T, Suzuki R, Sugiyama K, Wakita T, Hanada K, Yagi K, Kondoh M, Fukasawa M. Occludin-Knockout Human Hepatic Huh7.5.1-8-Derived Cells Are Completely Resistant to Hepatitis C Virus Infection. *Biol Pharm Bull*. 2016 May 1;39(5):839-48.
- 46) Suzuki Y, Doan YH, Kimura H, Shinomiya H, Shirabe K, Katayama K. Predicting genotype compositions in norovirus seasons in Japan. *Microbiol Immunol* 60:418-26, 2016
- 47) Suzuki R, Saito K, Matsuda M, Sato M, Kanegae Y, Shi G, Watashi K, Aizaki H, Chiba J, Saito I, Wakita T, Suzuki T. Single-domain Intrabodies against HCV Core Inhibit Viral Propagation and Core-induced NF- κ B Activation. *J Gen Virol*. 2016 Apr;97(4):887-92.
- 48) Takeda M, Ikeda M, Satoh S, Dansako H, Wakita T, Kato N. Rab13 Is Involved in the Entry Step of Hepatitis C Virus Infection. *Acta Med Okayama*. 2016 Apr;70(2):111-8.
- 49) Takemura K, Adegoke O, Takahashi N, Kato T, Li TC, Kitamoto N, Tanaka T, Suzuki T, Park EY. Versatility of a localized surface plasmon resonance-based gold nanoparticle-alloyed quantum dot nanobiosensor for immunofluorescence detection of viruses. *Biosens Bioelectron*. 2017 Mar 15;89(Pt 2):998-1005.
- 50) Tao Z, Wang Z, Lin Z, Wang S, Wang H, Yoshida H, Xu A, Song Y. One-year Survey of human enteroviruses from sewage and the factors affecting virus adsorption to the suspended solids. *Sci Rep* 2016 Aug 11;6:31474
- 51) Tsunematsu S, Suda G, Yamasaki K, Kimura M, Izumi T, Umemura M, Ito J, Sato F, Nakai M, Sho T, Morikawa K, Ogawa K, Tanaka Y, Watashi K, Wakita T, Sakamoto N. Hepatitis B virus X protein impairs α -interferon signaling via up-regulation of suppressor of cytokine signaling 3 and protein phosphatase 2A. *J Med Virol*. 2017 Feb;89(2):267-275.
- 52) Tsutsumi T, Okushin K, Enooku K, Fujinaga H, Moriya K, Yotsuyanagi H, Aizaki H, Suzuki T, Matsuura Y, Koike K. Nonstructural 5A Protein of Hepatitis C Virus Interferes with Toll-Like Receptor Signaling and Suppresses the Interferon Response in Mouse Liver. *PLoS One*. 2017 Jan 20;12(1):e0170461.
- 53) Yamada N, Sugiyama R, Nitta S, Murayama A,

- Kobayashi M, Okuse C, Suzuki M, Yasuda K, Yotsuyanagi H, Moriya K, Koike K, Wakita T, Kato T. Resistance mutations of hepatitis B virus in entecavir-refractory patients. Hepatol Comm. 1: 110-121, 2017.
- 54) Yamamoto S, Fukuhara T, Ono C, Uemura K, Kawachi Y, Shiokawa M, Mori H, Wada M, Shima R, Okamoto T, Hiraga N, Suzuki R, Chayama K, Wakita T, Matsuura Y. Lipoprotein Receptors Redundantly Participate in Entry of Hepatitis C Virus. PLoS Pathog. 2016 May 6;12(5):e1005610.
- 55) Yao WL, Ikeda S, Tsukamoto Y, Shindo K, Otakaki Y, Qin M, Iwasawa Y, Takeuchi F, Kaname Y, Chou YC, Chang C, Watashi K, Wakita T, Noda T, Kato H, Fujita T. Establishment of a human hepatocellular cell line capable of maintaining long-term replication of hepatitis B virus. Int Immunol. 2017 Mar 1;29(3):109-120.
- 56) Yokokawa H, Higashino A, Suzuki S, Moriyama M, Nakamura N, Suzuki T, Suzuki R, Ishii K, Kobiyama K, Ishii KJ, Wakita T, Akari H, Kato T. Induction of humoral and cellular immunity by immunisation with HCV particle vaccine in a non-human primate model. Gut. doi: 10.1136/gutjnl-2016-312208, 2016.
- 57) Zhang W, Sano N, Kataoka M, Ami Y, Suzaki Y, Wakita T, Ikeda H, Li TC. Virus-like particles of porcine bocavirus generated by recombinant baculoviruses can be applied to sero-epidemic studies. Virus Res. 2016 Jun 2;217:85-91.