

### **3. Department of Virology III**

1. Seki F, Miyoshi M, Ikeda T, Nishijima H, Saikusa M, Itamochi M, Minagawa H, Kurata T, Ootomo R, Kajiwara J, Kato T, Komase K, Tanaka-Taya K, Sunagawa T, Oishi K, Okabe N, Kimura H, Suga S, Kozawa K, Otsuki N, Mori Y, Shirabe K, Takeda M, Measles Surveillance Group in Japan, Technical Support Team for Measles Control in Japan. (2019) Nationwide molecular epidemiology of measles virus in Japan between 2008 and 2017. *Front Microbiol* 10:1470
2. Tahara M, Takishima Y, Miyamoto S, Nakatsu Y, Someya K, Sato M, Tani K, Takeda M. (2019) Photocontrollable mononegaviruses. *Proc Natl Acad Sci USA* 116:11587–9.
3. Otsuki N, Sakata M, Mori Y, Okamoto K, Takeda M. (2018) Analysis of effect of SMase treatment on rubella virus infectivity. *Bio Protoc* 8:e2992.
4. Otsuki N, Sakata M, Saito K, Okamoto K, Mori Y, Hanada K, Takeda M. (2018) Both sphingomyelin and cholesterol in the host cell membrane are essential for rubella virus entry. *J Virol* 92:e01130-17.
5. Katoh H, Sekizuka T, Nakatsu Y, Nakagawa R, Nao N, Sakata M, Kato F, Kuroda M, Kidokoro M, Takeda M. The R2TP complex regulates paramyxovirus RNA synthesis. *PLoS Pathogen* 15:e1007749.
6. Matsuyama S, Shirato K, Kawase M, Terada Y, Kawachi K, Fukushi S, Kamitani W. (2018) Middle East respiratory syndrome coronavirus spike protein is not activated directly by cellular furin during viral entry into target cells. *J. Virol.* 92(19): e00683–18.
7. Shirato K, Semba S, El-Kafrawy SA, Hassan AM, Tolah AM, Takayama I, Kageyama T, Notomi T, Kamitani W, Matsuyama S, Azhar EI. (2018). Development of Fluorescent Reverse Transcription Loop-mediated Isothermal Amplification (RT-LAMP) using Quenching probes for the detection of the Middle East Respiratory Syndrome Coronavirus. *J. Virol. Methods*. 258:41–48.
8. Shirato K, Chang HW, Rottier PJM. (2018). Differential susceptibility of macrophages to serotype II feline coronaviruses correlates with differences in the viral spike protein. *Virus Res.* 255:14–23.
9. Shirato K, Kawase M, Matsuyama S. (2018) Wild-type human coronaviruses prefer cell-surface TMPRSS2 to endosomal cathepsins for cell entry. *Virology*. 517:9–15.
10. Nao N, Sato K, Yamagishi Y, Tahara M, Nakatsu Y, Seki E, Katoh H, Ohnuma A, Shirogane Y, Hayashi M, Suzuki T, Kikuta H, Nishimura H, Takeda M. Consensus and variations in cell line specificity among human metapneumovirus strains. *PLoS One* 14:e0215822.
11. Alam MS, Takahashi S, Ito M, Komura M, Kabir MH, Shoham D, Sakai K, Suzuki M, Takehara K. (2019) Bactericidal efficacies of food additive grade calcium hydroxide toward Legionella. *J Vet Med Sci*. doi:10.1292/jvms.19-0098.
12. Brown KE, Rota PA, Goodson JL, Williams D, Abernathy, Takeda M, Mulders MN. (2019) Genetic characterization of measles and rubella viruses detected through global measles and rubella elimination surveillance, 2016–2018. *MMWR* 68:587–591.
13. Brown KE, Rota PA, Goodson JL, Williams D, Abernathy, Takeda M, Mulders MN. (2019) Genetic characterization of measles and rubella viruses detected through global measles and rubella elimination surveillance, 2016–2018. *WER* 94:301–307.
14. Fukuhara H, Ito Y, Sako M, Yoshida K, Seki F, Hashiguchi T, Higashibata M, Ose T, Kuroki K, Takeda M, Maenaka K. (2019) Specificity of morbillivirus hemagglutinins to recognize SLAM of different species. *Viruses* (in press)
15. Fukushi S, Fukuma A, Kurosu T, Watanabe S, Shimojima M, Shirato K, Iwata-Yoshikawa N, Nagata N, Ohnishi K, Ato M, Melaku SK, Sentsui H, Saijo M. (2018) Characterization of novel monoclonal antibodies against the MERS-coronavirus spike protein and their application in species-independent antibody detection

- by competitive ELISA. J Virol Methods. 251:22–29.
- 16. Hachiya M, Miyano S, Mori Y, Vynnycky E, Keungsaneth P, Vongphrachanh P, Xeuatvongsa A, Sisouk T, Som-Oulay V, Khamphaphongphane B, Sengkeopaseuth B, Pathammavong C, Phounphenghak K, Kitamura T, Takeda M, Komase K. (2018) Evaluation of nationwide supplementary immunization in Lao People's Democratic Republic: population-based seroprevalence survey of anti-measles and anti-rubella IgG in children and adults, mathematical modelling and a stability testing of the vaccine. PLoS One 13:e0194931.
  - 17. Himura H, Shirabe K, Takeda M, Kobayashi M, Tsukagoshi H, Okayama K, Ryo A, Nagasawa K, Okabe N, Minagawa H, Kozawa K. (2019) The association between documentation of Koplik spots and laboratory diagnosis of measles and other rash diseases in a national measles surveillance program in Japan. Front Microbiol 10:269.
  - 18. Iwata-Yoshikawa N, Okamura T, Shimizu Y, Hasegawa H, Takeda M, Nagata N. (2019) TMPRSS2 contributes to virus spread and immunopathology in the airways of murine models after coronavirus infection. J Virol 93:e01815-18.
  - 19. Iwata-Yoshikawa N, Okamura T, Shimizu Y, Kotani O, Sato H, Sekimukai H, Fukushi S, Suzuki T, Sato Y, Takeda M, Tashiro M, Hasegawa H, Nagata N. (2019) Acute Respiratory Infection in Human Dipeptidyl Peptidase 4-Transgenic Mice Infected with Middle East Respiratory Syndrome Coronavirus. J Virol 93:e01818-18.
  - 20. Kitamura T, Bouakhasith V, Phounphenghak K, Pathammavong C, Xeuatvongsa A, Norizuki M, Okabayashi H, Mori Y, Machida M, Hachiya M. (2018) Assessment of temperatures in the vaccine cold chain in two provinces in Lao People's Democratic Republic: a cross-sectional pilot study. BMC Res Notes 11:261.
  - 21. Matsuno K, Kajihara M, Nakao R, Nao N, Mori-Kajihara A, Muramatsu M, Qiu Y, Torii S, Igarashi M, Kasajima N, Mizuma K, Yoshii K, Sawa H, Sugimoto C, Takada A, Ebihara H. (2018) The Unique Phylogenetic Position of a Novel Tick-Borne Phlebovirus Ensures an Ixodid Origin of the Genus Phlebovirus., mSphere 3: e00239-183.
  - 22. Ohishi K, Maruyama T, Seki F, Takeda M. (2019) Marine Morbilliviruses: The diversity and interaction with receptors. Viruses 11:606
  - 23. Okabayashi H, Komada K, Kidokoro M, Kitamura T, Miyano S, Ito T, Phounphenghak K, Pathammavong C, Murano K, Nagai M, Mori Y, Komase K, Xeuatvongsa A, Takeda M, Hachiya M. Seroprevalence of mumps before the introduction of mumps-containing vaccine in Lao PDR: Results from a nationwide cross-sectional population-based survey. BMC Res Notes 12:155
  - 24. Saikusa M, Nao N, Kawakami C, Usuku S, Tanaka N, Tahara M, Takeda M, Okubo I. Predominant detection of the subgroup A2b human metapneumovirus strain with 111-nucleotide duplication in Yokohama City, Japan in 2018. Jpn J Infect Dis. Doi:10.7883/yoken.JJID.2019.124.
  - 25. Saito K, Otsuki N, Takeda M, Hanada K. (2018) Liposome floatation assay for studying interaction between rubella virus particles and lipid membranes. Bio Protoc 8:e2983.
  - 26. Sangsriratanakul N, Toyofuku C, Suzuki M, Komura M, Yamada M, Alam MS, Ruenphet S, Shoham D, Sakai K, Takehara T. (2018) Virucidal Efficacy of Food Additive Grade Calcium Hydroxide against Surrogate of Human Norovirus. J Virol Methods. 251:83–87
  - 27. Sato M, Maruyama J, Kondoh T, Nao N, Miyamoto H, Takadate Y, Furuyama W, Kajihara M, Ogawa H, Manzoor R, Yoshida R, Igarashi M, Takada A. (2019) Generation of bat-derived influenza viruses and their reassortants, Sci Rep 9(1) 1158.
  - 28. Suzuki T, Okamoto T, Katoh H, Sugiyama Y, Kusakabe S, Tokunaga M, Hirano J, Miyata Y, Fukuhara T, Ikawa

- M, Satoh T, Yoshio S, Suzuki R, Saijo M, Huang DCS, Kanto T, Akira S, Matsuura Y. Infection with flaviviruses requires BCLX<sub>L</sub> for cell survival. PLoS Pathog. 14(9), e1007299. 2018
29. Tadokoro T, Jahan ML, Ito Y, Tahara M, Chen S, Imai A, Sugimura N, Yoshida K, Saito M, Ose T, Hashiguchi T, Takeda M, Fukuahara H, Maenaka K. (2019) Biophysical characterization and single-chain Fv construction of a neutralizing antibody to measles virus. FEBS J doi:10.1111/febs.14991.
30. Torii S, Matsuno K, Qiu Y, Mori-Kajihara A, Kajihara M, Nakao R, Nao N, Okazaki K, Sashika M, Hiono T, Okamatsu M, Sakoda Y, Ebihara H, Takada A, Sawa H. (2019) Infection of newly identified phleboviruses in ticks and wild animals in Hokkaido, Japan indicating tick-borne life cycles., Ticks Tick Borne Dis 10(2) 328–335.
31. Vynnycky E, Miyano S, Komase K, Mori Y, Takeda M, Kitamura T, Xeuatvongsa A, Hachiya M. (2019) Estimating the immunogenicity of measles–rubella vaccination administered during a mass campaign in Lao People’s Democratic Republic using multi-valent seroprevalence data. PLOS One (in press)
32. Yoshida A, Kawabata R, Honda T, Sakai K, Ami Y, Sakaguchi T, Irie T. (2018) A single amino acid substitution within the Paramyxovirus Sendai virus nucleoprotein is a critical determinant for production of IFN-beta-inducing copyback-type defective interfering genomes. J Virol. 92(5). pii: e02094–17.