4. Department of Bacteriology I

1) Kutsuna S, Kawabata H, Takano A, Kasahara K. Imported relapsing fever, Japan. American Journal of Tropical Medicine and Hygiene. 2013. 89(3): 460-461.

2) Kawabata H, Takano A, Kadosaka T, Fujita H, Nitta Y, Gokuden M, Honda T, Tomida J, Kawamura Y, Masuzawa T, Ishiguro F, Takada N, Yano Y, Andoh M, Ando S, Sato K, Takahashi H, Ohnishi M. Multilocus sequence typing and DNA similarity analysis implicates that a *Borrelia valaisiana*-related sp. isolated in Japan is distinguishable from European *B. valaisiana*. Journal of Veterinary Medical Science. 2013. 75(9): 1201-1207.

3) Inokuma S, Maetani S, Fujitsuka J, Takano A, Sato K, Fukui T, Masuzawa T, Kawabata H. Astasia and Pyrexia Related to *Borrelia garinii* Infection in Two Dogs in Hokkaido, Japan. Journal of Veterinary Medical Science. 2013. 75(7): 975-978.

4) Taylor K, Takano A, Konnai S, Shimozuru M, Kawabata H, Tsubota T. Differential tick burdens may explain differential *Borrelia afzelii* and *Borrelia garinii* infection rates among four, wild, rodent species in Hokkaido, Japan. Journal of Veterinary Medical Science. 2013. 75(6): 785-790.

5) Yamauchi T, Satô M, Ito T, Fujita H, Takada N, Kawabata H, Ando S, Sakata A, Takano A. Survey of tick fauna and tick-borne pathogenic bacteria in Rishiri Island, off north Hokkaido, Japan. International Journal of Acarology. 2013. 39(1), 3-6.

6) Motoi Y, Asano M, Inokuma H, Ando S, Kawabata H, Takano A, Suzuki M. Detection of *Rickettsia tamurae* DNA in ticks and wild boar (*Sus scrofa* leucomystax) skins in Shimane Prefecture, Japan. Journal of Veterinary Medical Science. 2013. 75(3), 263-267.

7) Murase Y, Konnai S, Githaka N, Hideno A, Taylor K, Ito T, Takano A, Ando S, Kawabata H, Tsubota T, Murata S, Ohashi K. Prevalence of Lyme borrelia in *Ixodes persulcatus* ticks from an area with a confirmed case of Lyme disease. Journal of Veterinary Medical Science. 2013. 75(2), 215-218.

8) Taylor K, Takano A, Shimotsuru, Konnai S, Kawabata H, Tsubota T. *Borrelia miyamotoi* infections among wild rodents show age and month independence and correlation with *Ixodes persulcatus* larval attachment in Hokkaido, Japan. Vector-Borne and Zoonotic Diseases 2013. 13(2), 92-97.

9) Ohashi N, Gaowa, Wurito, Kawamori F, Wu D, Yoshikawa Y, Chiya S, Fukunaga K, Funato T, Shiojiri M, Nakajima H, Hamauzu Y, Takano A, Kawabata H, Ando S, Kishimoto T. Human grabulocytic anaplasmosis in Japan. Emerging Infectious Diseases. 2013. 19(2), 289-292.

10) Gaowa, Ohashi N, Aochi M, Wurito, Wu D, Yoshikawa Y, Kawamori F, Honda T, Fujita H, Takada N, Oikawa Y, Kawabata H, Ando S, Kishimoto T. Rickettsia-related pathogens in ticks, central to western Japan. Emerging Infectious Diseases. 2013. 19(2), 338-340.

11) Shimuta K, Unemo M, Nakayama S, Morita-Ishihara T, Dorin M, Kawabata T, Ohnishi M. Antimicrobial resistance and molecular typing of *Neisseria gonorrhoeae* isolates in Kyoto and Osaka, Japan in 2010-2012: Intensified surveillance after identification of the first strain (H041) with high-level ceftriaxone resistance. Antimicrob Agents Chemother. 57:5225-5232. 2013.

12) McMillan DJ, Drèze P, Vu T, Bessen DE, Guglielmini J, Steer AC, Carapetis JR, Melderen LV, Sriprakash KS, Smeesters PR, The M Protein Study Group. Updated model of group A *Streptococcus* M proteins based on a comprehensive worldwide study. Clin Microbiol Infect 19 (5): E222-E229, 2013.

13) Sudo N, Soma A, Muto A, Iyoda S, Suh M, Kurihara N, Abe H, Tobe T, Ogura Y, Hayashi T, Kurokawa K, Ohnishi M, Sekine Y. A novel small regulatory RNA enhances cell motility in enterohemorrhagic *Escherichia coli*. J Gen Appl Microbiol. 2014; 60: 44-50.

14) Yamamoto S, Mitobe J, Ishikawa T, Wai SN, Ohnishi M, Watanabe H, Izumiya H. Regulation of natural competence by the orphan two-component system sensor kinase ChiS involves a non-canonical transmembrane regulator in *Vibrio cholerae*. Mol Microbiol 2014, 91:326-347

15) Sumiyama D, Izumiya H, Kanazawa T, Murata K. *Salmonella* infection in green, anoles (*Anolis carolinensis*), an invasive alien species on Chichi Island of the, Ogasawara archipelago in Japan. J Vet Med Sci. 2014 Mar;76(3):461-5.

16) Chiou CS, Izumiya H, Thong KL, Larsson JT, Liang

SY, Kim J, Koh XP. A simple approach to obtain comparable *Shigella sonnei* MLVA results across laboratories. Int J Med Microbiol. 2013 Dec;303(8):678-84.

17) Mather AE, Reid SW, Maskell DJ, Parkhill J, Fookes MC, Harris SR, Brown DJ, Coia JE, Mulvey MR, Gilmour MW, Petrovska L, de Pinna E, Kuroda M, Akiba M, Izumiya H, Connor TR, Suchard MA, Lemey P, Mellor DJ, Haydon DT, Thomson NR. Distinguishable epidemics of multidrug-resistant *Salmonella* Typhimurium DT104 in different hosts. Science. 2013 Sep 27;341(6153):1514-7.

18) Larsson JT, Torpdahl M; MLVA working group (Izumiya H), Møller Nielsen E. Proof-of-concept study for successful inter-laboratory comparison of MLVA results. Euro Surveill. 2013 Aug 29;18(35):20566.

19) Nadon CA, Trees E, Ng LK, Møller Nielsen E, Reimer A, Maxwell N, Kubota KA, Gerner-Smidt P; MLVA Harmonization Working Group (Izumiya H). Development and application of MLVA methods as a tool for inter-laboratory surveillance. Euro Surveill. 2013 Aug 29;18(35):20565.

20) Izumiya H, Terajima J, Yamamoto S, Ohnishi M, Watanabe H, Kai A, Kurazono T, Taguchi M, Asai T, Akiba M, Matsumoto Y, Tamura Y. Genomic analysis of *Salmonella* enterica serovar Typhimurium definitive phage type 104. Emerg Infect Dis. 2013 May;19(5):823-5.

21) Morita M, Yamamoto S, Hiyoshi H, Kodama T, Okura M, Arakawa E, Alam M, Ohnishi M, Izumiya H, Watanabe H. Horizontal gene transfer of a genetic island encoding a type III secretion system distributed in *Vibrio cholerae*. Microbiol Immunol. 2013, 57: 334-339.

22) Mawatari M, Kato Y, Hayakawa K, Morita M, Yamada K, Mezaki K, Kobayashi T, Fujiya Y, Kutsuna S, Takeshita N, Kanagawa S, Ohnishi M, Izumiya H, Ohmagari N. *Salmonella enterica* serotype Paratyphi A carrying CTX-M-15 type extended-spectrum beta-lactamase isolated from a Japanese traveller returning from India, Japan, July 2013. Eurosurveillance. 2013, 18(46):pii=20632.

23) Tamura S, Taniguchi F, Nakamoto C, Nakamoto H, Arakawa E, Fukuchi T, Nakano Y, Fujimoto T. Fatal diarrheal disease caused by *Vibrio cholerae* O67 in a patient with myelodysplastic syndrome. Intern Med. 2013;52(14):1635-9.

24) Kiga, K., Mimuro, H., Suzuki, M., Shinozaki, A., Kobayashi, T., Sanada, T., Kim, M., Ogawa, M., Iwasaki, Y. W., Kayo, H., Fukuda-Yuzawa, Y., Yashiro, M., Fukayama, M., Fukao. T., Sasakawa, C. Epigenetic silencing of miR-210 increases the proliferation of gastric epithelium during chronic *Helicobacter pylori* infection. **Nat. Commun.** in press

25) Ikebe, T., Tominaga, K., Shima, T., Okuno, R., Kubota, H., Ogata, K., Chiba, K., Katsukawa, C., Ohya, H., Tada, Y., Okabe, N., Watanabe, H., Ogawa, M., Ohnishi, M., the Working Group For Beta-Hemolytic streptococci In Japan. Increased prevalence of group A *streptococcus* isolates in streptococcal toxic shock syndrome cases in Japan from 2010-2012. **Epidemiol. Infect**. in press.

26) Harada-Hada, K., Harada, K., Kato, F., Hisatsune, J., Tanida, I., Ogawa, M., Asano, S., Sugai, M., Hirata M., Kanematsu. T. Phospholipase C-related catalytically inactive protein participates in the autophagic elimination of *Staphylococcus aureus* infecting mouse embryonic fibroblasts. **PLoS One**, 9: e98285. (2013)

27) Chang, SY., Lee, SN., Yang, JY., Kim, DW., Yoon, JH., Ko, HJ., Ogawa, M., Sasakawa, C. Kweon, MN. Autophagy controls an intrinsic host defense to bacteria by promoting epithelial cell survival: a murine model. **PLoS One**, 8:e81095. (2013)

28) Hifumi T, Fujishima S, Chang B, Sasaki J, Kiriu N, Kato H, Inoue J, Koido Y. Fatal overwhelming postsplenectomy infection caused by *Streptococcus pneumoniae* in mothers within 1 year after delivery: case report. J Infect Chemother 2013, 19:1202-1205.

29) Otsuka T, Chang B, Wada A, Okazaki M. Molecular epidemiology and serogroup 6 capsular gene evolution of pneumococcal carriage in a Japanese birth cohort study. J Med Microbio 2013, 62: 1868-1875.

30) Ueno M, Ishii Y, Tateda K, Anahara Y, Ebata A, Iida M, Mizuno F, Inamura S, Takahata K, Suzuki Y, Chang B, Wada A, Sugita M, Tanaka T, Nishiwaki Y. Changes in *Streptococcus pneumoniae* Serotypes in the Nasopharynx of Japanese Children after Inoculation with a Heptavalent Pneumococcal Conjugate Vaccine.

Jpn J Infect Dis 2014, 67:40-43.

31) Kanatani JI, Isobe J, Kimata K, Shima T, Shimizu M, Kura F, Sata T, Watahiki M: Molecular epidemiology of Legionella pneumophila serogroup 1 isolates identify a prevalent sequence type, ST505, and a distinct clonal group of clinical isolates in Toyama prefecture, Japan. J. Infect. Chemother. 2013. 19:644-652.

32) Kanatani JI, Isobe J, Kimata K, Shima T, Shimizu M, Kura F, Sata T, Watahiki M: Close genetic relationship between Legionella pneumophila serogroup 1 isolates from sputum specimens and puddles on roads by sequence-based typing. Appl. Environ. Microbiol. 2013. 79:3959-3966.

33) Yamamoto K, Kato Y, Shindo T, Ujiie M, Takeshita N, Kanagawa S, Kunimatsu J, Tamori Y, Kano T, Okuno R, Takahashi H, Ohmagari N. Meningococcemia due to the 2000 Hajj-Associated Outbreak Strain (Serogroup W-135 ST-11) with Immunoreactive Complications. Jpn J. Infect Dis. 2013, 66 (5):443-445.

34) Gamage CD, Koizumi N, Perera CAK, Muto M, Nwafor-Okoli C, Ranasinghe S, Kularatne SAM, Rajapakse JRPV, Kanda K, Lee RB, Obayashi Y, Ohnishi M, Tamashiro H. Carrier status of leptospirosis among cattle in Sri Lanka: A zoonotic threat to public health. Transboundary Emerg Dis 2014, 61:91-6.

35) Mishima N, Tabuchi K, Kuroda T, Nakatani I, Lamaningao P, Miyake M, Kanda S, Koizumi N, Nishiyama T. The first case in Japan of severe human leptospirosis imported from Vietnam. Trop Med Health 2013, 41:171-6.

36) Widiyanti D, Koizumi N, Fukui T, Muslich L, Segawa T, Villanueva S, Saito M, Masuzawa T, Gloriani N, Yoshida S. Development of immunochromatography-based methods for detection of leptospiral lipopolysaccharide antigen in urine. Clin Vaccine Immunol 2013, 20: 683-90.

37) Koizumi N, Mizutani Muto M, Akachi S, Okano S, Yamamoto S, Horikawa K, Harada S, Funatsumaru S, Ohnishi M. Molecular and serological investigation of *Leptospira* and leptospirosis in dogs in Japan. J Med Microbiol 2013, 62: 630-6.

38) Yoneda S, Kawarai T, Narisawa N, Tuna EB, Sato N, Tsugane T, Saeki Y, Ochiai K, Senpuku K. Effects of short-chain fatty acids on Actinomyces naeslundii biofilm formation. Mol Oral Microbiol. 2013, 28: 354-365.

39) Araki M, Hoshi K, Fujiwara M, Sasaki Y, Yonezawa H, Senpuku H, Iwamoto-Kihara A, and Maeda M. Complementation of Fo c subunit of Escherichia coli with that of Streptococcus mutans and the properties of the hybrid FoF1-ATP synthase. J Bacteriol. 2013, 195: 4873-4878.

40) Satoh K, Narita T, Matsuki-Fukushima M, Okabayashi K, Yamazaki F, Arai T, Ito T, Senpuku H, Sugiya H. A novel animal model for dry mouth, E2f1-deficient NOD/SCID mice. Review. J Oral Biosc. 2014, 56: 18-22.

41) Nakao R, Takashiba S, Kosono S, Yoshida M, Watanabe H, Ohnishi M, Senpuku H. Effect of Porphyromonas gingivalis outer membrane vesicles on gingipain mediated detachment of cultured oral epithelial cells and immune responses. Microb Infect. 2014, 16: 6-16.

42) Tada A, Watanabe M, Senpuku H. Factors influencing compliance with infection control practice in Japanese dentists. Intern J Occup Environ Med. 2014, 5: 24-31.

43) Nakao R, Takashiba S, Kosono S, Yoshida M, Watanabe H, Ohnishi M, Senpuku H. : Effect of *Porphyromonas gingivalis* outer membrane vesicles on gingipain-mediated detachment of cultured oral epithelial cells and immune responses. Microb Infect 2014, 16(1):6-16.

44) Takayama Y, Nakayama S, Shimuta K, Morita-Ishihara T, Ohnishi M. Characterization of azithromycin-resistant *Neisseria gonorrhoeae* isolated in Tokyo in 2005-2011. J Infect Chemother. 2014 20, 339-341.

45) Kasahara K, Komatsu Y, Koizumi A, Chang B, Ohnishi M, Muratani T, Mikasa K. Serotype 35B *Streptococcus pneumoniae*, Japan, 2002-2012. J Infect Chemother. 2014 20, 228-230.

46) Ohnishi M, Unemo M. Phylogenomics for drug-resistant *Neisseria gonorrhoeae.*
Lancet Infect Dis. 2014 Mar;14(3):179-80. doi: 10.1016/S1473-3099(13)70700-X.
Epub 2014 Jan 22. PubMed PMID: 24462210.

47) Isobe J, Shima T, Kanatani J, Kimata K, Shimizu M, Kobayashi N, Tanaka T, Iyoda S, Ohnishi M, Sata

T, Watahiki M. Serodiagnosis using microagglutination assay during the food-poisoning outbreak in Japan caused by consumption of raw beef contaminated with enterohemorrhagic Escherichia coli O111 and O157. J Clin Microbiol. 2014 52, 1112-1128.
48) Chen SC, Yin YP, Dai XQ, Yu RX, Han Y, Sun HH, Ohnishi M, Unemo M, Chen XS. Prevalence and molecular epidemiological typing of penicillinase-producing *Neisseria gonorrhoeae* and their bla(TEM-135) gene variants in Nanjing, China. Sex Transm Dis. 2013 40, 872-876.
49) Goire N, Lahra MM, Ohnishi M, Hogan T, Liminios AE, Nissen MD, Sloots TP, Whiley DM. Polymerase chain reaction-based screening for the ceftriaxone-resistant *Neisseria gonorrhoeae* F89 strain. Euro Surveill. 2013 18, 20444.
50) Tomberg J, Unemo M, Ohnishi M, Davies C, Nicholas RA. Identification of amino acids conferring high-level resistance to expanded-spectrum cephalosporins in the *penA* gene from *Neisseria gonorrhoeae* strain H041. Antimicrob Agents Chemother. 2013, 57, 3029-3036.