

# 衛生学講座

## ○主な研究内容

- 1 院内・市中感染起因菌（黄色ブドウ球菌、肺炎球菌、大腸菌等）の分子疫学
- 2 熱帯感染症原因菌・ウイルスの分子疫学
- 3 薬剤耐性遺伝子の分子遺伝学
- 4 感染症流行に関する時系列解析

## ○Pub Med 掲載論文（2018年）

1. Molecular characterization of *Staphylococcus argenteus* in Myanmar: identification of novel genotypes/clusters in staphylocoagulase, protein A, alpha-hemolysin and other virulence factors.

Aung MS, San T, San N, Oo WM, Ko PM, Thet KT, Urushibara N, Kawaguchiya M, Sumi A, Kobayashi N.

J Med Microbiol. 2019 Jan;68(1):95–104. doi: 10.1099/jmm.0.000869. Epub 2018 Nov 12. PMID: 30418108

2. Molecular epidemiological characterization of methicillin-susceptible and -resistant *Staphylococcus aureus* isolated from skin and soft tissue infections in Bangladesh.

Haque N, Aung MS, Paul SK, Bari MS, Ahmed S, Sarkar SR, Roy S, Nasreen SA, Mahmud MC, Hossain MA, Urushibara N, Kawaguchiya M, Sumi A, Kobayashi N.

Microbial Drug Resistance, 2018 Aug 10. doi: 10.1089/mdr.2018.0123. [Epub ahead of print] PMID: 30096257

3. High detection rates of picobirnaviruses in free roaming rats (*Rattus* spp.): Molecular characterization of complete gene segment-2.

Ghosh S, Shiokawa K, Aung MS, Malik YS, Kobayashi N.

Infect Genet Evol. 2018, 65:131–135. doi: 10.1016/j.meegid.2018.07.024. Epub 2018 Jul 23. PMID: 30048810

4. Impact of Emerging, Re-Emerging and Zoonotic Viral Infectious Diseases, in a Virologist's Perspective.

Kobayashi N.

Open Virol J. 2018, Aug 31;12:131–133. doi: 10.2174/1874357901812010131. eCollection 2018. PMID: 30288201

5. High detection rates of Torque teno sus virus in concomitant infection with important viral pathogens in porcine kidneys on St. Kitts Island: First report from the Lesser Antilles.

Ghosh S, Soto E, Illanes O, Navarro R, Aung MS, Malik YS, Kobayashi N, Fuentealba C. Transbound Emerg Dis. 2018 Oct;65(5):1175–1181. doi: 10.1111/tbed.12960. Epub 2018 Jul 17. PMID: 30015412

6. Role of temperature in reported chickenpox cases in northern European countries: Denmark and Finland.

Sumi A.

BMC Res Notes. 2018 Jun 13;11(1):377. doi: 10.1186/s13104-018-3497-0. PMID: 29895325

7. Genetic diversity of pneumococcal surface protein A(PspA) in pediatric isolates of non-conjugate vaccine serotypes in Japan.

Kawaguchiya M, Urushibara N, Aung MS, Morimoto S, Ito M, Kudo K, Kobayashi N.

J Med Microbiol, Aug;67(8):1130-1138. doi: 10.1099/jmm.0.000775. Epub 2018 Jun 21. PMID: 29927374

8. Prevalence and molecular epidemiology of clinical isolates of Escherichia coli and Klebsiella pneumoniae harboring extended-spectrum beta-lactamase and carbapenemase genes in Bangladesh.

Khan ER, Aung MS, Paul SK, Ahmed S, Haque N, Ahamed F, Sarkar SR, Roy S, Rahman MM, Mahmud MC, Hossain MA, Urushibara N, Kawaguchiya M, Sumi A, Kobayashi N.

Microb Drug Resist 2018, 24:1568-1579. doi: 10.1089/mdr.2018.0063. [Epub ahead of print] PMID: 29958064

9. Molecular characterization of chikungunya virus causing the 2017 outbreak in Dhaka, Bangladesh.

Melan A, Aung MS, Khanam F, Paul SK, Riaz BK, Tahmina S, Kabir MI, Hossain MA, Kobayashi N.

New Microbes and New Infections, 2018, 24:14-16. doi: 10.1016/j.nmni.2018.03.007. eCollection 2018 Jul. PMID: 29707212

10. Molecular characterization of unusual bovine rotavirus A strains having high genetic relatedness with human rotavirus: evidence for zoonothroponotic transmission.

Kumar N, Malik YS, Sharma K, Dhama K, Ghosh S, Banyai K, Kobayashi N, Singh RK.

Zoonoses Public Health. 2018, 65:431-442. doi: 10.1111/zph.12452 Epub 2018 Feb 20. PMID: 29464925

11. Identification of a PVL-negative SCCmec-IVa sublineage of the methicillin-resistant Staphylococcus aureus CC80 lineage: understanding the clonal origin of CA-MRSA.

Edslev SM, Westh H, Andersen PS, Skov R, Kobayashi N, Bartels MD, Vandenesch F, Petersen A, Worning P, Larsen AR, Stegger M.

Clin Microbiol Infect, 2018, 24:273-278. doi: 10.1016/j.cmi.2017.06.022. Epub 2017 Jun 29. PMID: 28668467

12. Prevalence of extended-spectrum beta-lactamase and carbapenemase genes in clinical isolates of Escherichia coli in Myanmar : dominance of blaNDM-5 and emergence of blaOXA-181.

Aung MS, San N, Maw WW, San T, Urushibara N, Kawaguchiya M, Sumi A, Kobayashi N. *Microb Drug Resist* 2018, 24:1333–1344. doi: 10.1089/mdr.2017.0387. Epub 2018 Mar 22. PMID: 29565227

13. Species C Rotaviruses in Children with Diarrhea in India, 2010–2013: A Potentially Neglected Cause of Acute Gastroenteritis.

Bhat S, Kattoor JJ, Malik YS, Sircar S, Deol P, Rawat V, Rakholia R, Ghosh S, Vlasova AN, Nadia T, Dhama K, Kobayashi N. *Pathogens*, 2018, 7(1), pii: E23. doi: 10.3390/pathogens7010023. PMID: 29462971

14. Analysis of porcine rotavirus A enterotoxin gene for structure–function relationship.

Saurabh S, Sircar S, Kattoor JJ, Ghosh S, Kobayashi N, Banyai K, Kumar ORV, De U, Sahoo NR, Dhama K, Malik YS. *J Vet Sci* 2018, Jan 31;19(1):35–43. doi: 10.4142/jvs.2018.19.1.35. PMID: 28057906

15. A Colonization Outbreak of Penicillin–Susceptible mecA–Positive *Staphylococcus aureus* in a Neonatal Ward of Children’s Hospital.

Minami K, Terakawa R, Sato M, Shoji Y, Hiroma T, Nakamura T, Horiuchi A, Otsuka A, Kubota N, Hidaka E, Kawakami Y, Aung MS, Kobayashi N. *Infect Control Hosp Epidemiol*. 2018 Feb;39(2):239–241. doi: 10.1017/ice.2017.266. Epub 2018 Jan 15. No abstract available. PMID: 29332612

16. The therapeutics and immunoprophylaxis against Noroviruses and Rotaviruses: the past, present, and future.

Ghosh S, Malik YS, Kobayashi N. *Current Drug Metabolism*. 2018, 19:170–191. doi:10.2174/1389200218666170912161449. PMID: 28901254

## ○その他論文 (2018 年)

1. 佐藤多嘉之, 高橋一人, 酒井好幸, メイジソウアウン, 小林宣道. ウシからの由来が推定される黄色ブドウ球菌による感染性心内膜炎の 1 例. *日本臨床微生物学雑誌*, 2018. 28 : 42–47.
2. 小林宣道. 第 59 回日本臨床ウイルス学会教育講演. 変わりゆく術語 (ことば) と変わらない本質 ~ロタウイルスの研究から~. *臨床とウイルス* 2018. 46 : 217–225.

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- 3 感染性微生物の病原因子に関する機能解析
- 4 院内感染起因菌、薬剤耐性菌の分子疫学
- 5 病原最近における薬剤耐性遺伝子の分子遺伝学
- 6 感染症流行に関する時系列解析

## ○Pub Med 掲載論文 (2017 年)

1. Molecular characterization of canine parvovirus and canine enteric coronavirus in diarrheic dogs on the island of St. Kitts: First report from the Caribbean region.

Navarro R, Nair R, Peda A, Aung MS, Ashwinie GS, Gallagher CA, Malik YS, Kobayashi N, Ghosh S.

Virus Res. 2017 Aug 15;240:154–160. doi: 10.1016/j.virusres.2017.08.008. Epub 2017 Aug 26.

PMID:28847699

2. Nationwide prevalence of Rickettsia felis infections in patients with febrile illness in Bangladesh.

Chowdhury NF, Paul SK, Aung MS, Hossain MA, Ahamed F, Ahmed S, Haque N, Nasreen SA, Khan SI, Rahman SMM, Rahman ASMM, Ferdouse F, Ahmed R, Sultan SM, Ahmed MU, Urushibara N, Kobayashi N.

New Microbes New Infect. 2017 Jul 15;19:123–125. doi: 10.1016/j.nmni.2017.07.005. eCollection 2017 Sep.

PMID: 28831298

3. Association between meteorological factors and reported cases of hand, foot, and mouth disease from 2000 to 2015 in Japan.

Sumi A, Toyoda S, Kanou K, Fujimoto T, Mise K, Kohei Y, Koyama A, Kobayashi N.

Epidemiol Infect. 2017 Oct;145(14):2896–2911. doi: 10.1017/S0950268817001820. Epub 2017 Aug 22.

PMID:28826420

4. Prevalence and Genetic Characteristics of Staphylococcus aureus and Staphylococcus argenteus Isolates Harboring Panton–Valentine Leukocidin, Enterotoxins, and TSST–1 Genes from Food Handlers in Myanmar.

Aung MS, San T, Aye MM, Mya S, Maw WW, Zan KN, Htut WHW, Kawaguchiya M, Urushibara N, Kobayashi N.

Toxins (Basel). 2017 Aug 4;9(8). pii: E241. doi: 10.3390/toxins9080241.

PMID: 28777321

5. Role of meteorological conditions in reported chickenpox cases in Wuhan and Hong Kong, China.

Chen B, Sumi A, Wang L, Zhou W, Kobayashi N.  
BMC Infect Dis. 2017 Aug 3;17(1):538. doi: 10.1186/s12879-017-2640-1.  
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6. Molecular characterization of complete genomic segment-2 of picobirnavirus strains detected in a cat and a dog.

Navarro R, Yibin C, Nair R, Peda A, Aung MS, Ketzis J, Malik YS, Kobayashi N, Ghosh S.  
Infect Genet Evol. 2017 Oct;54:200-204. doi: 10.1016/j.meegid.2017.07.006. Epub 2017 Jul 5.  
PMID:28688978

7. Septic arthritis caused by an emerging ST121 methicillin-susceptible, PVL-negative *Staphylococcus aureus* harbouring a variant of bone sialoprotein-binding protein gene.

Togashi A, Aung MS, Yoto Y, Tsugawa T, Sueoka H, Kawaguchiya M, Tsutsumi H, Kobayashi N.  
New Microbes New Infect. 2017 May 24;19:17-18. doi: 10.1016/j.nmni.2017.05.010. eCollection 2017 Sep.  
PMID:28663800

8. Collaborative Research with Chinese, Indian, Filipino and North European Research Organizations on Infectious Disease Epidemics.

Sumi A, Kobayashi N.  
Nihon Eiseigaku Zasshi. 2017;72(2):112-122. doi: 10.1265/jjh.72.112. Review. Japanese.  
PMID:28552891

9. Collaborative Research on Puerperal Infections in Bangladesh.

Kobayashi N, Ahmed S, Sumi A, Urushibara N, Kawaguchiya M, Aung MS.  
Nihon Eiseigaku Zasshi. 2017;72(2):106-111. doi: 10.1265/jjh.72.106. Review. Japanese.  
PMID: 28552890

10. Serotype distribution, antimicrobial resistance and prevalence of pilus islets in pneumococci following the use of conjugate vaccines.

Kawaguchiya M, Urushibara N, Aung MS, Shinagawa M, Takahashi S, Kobayashi N.  
J Med Microbiol. 2017 May;66(5):643-650. doi: 10.1099/jmm.0.000479. Epub 2017 May 18.  
PMID: 28516842

11. Contribution of Type II Topoisomerase Mutations to Fluoroquinolone Resistance in *Enterococcus faecium* from Japanese Clinical Setting.

Urushibara N, Suzaki K, Kawaguchiya M, Aung MS, Shinagawa M, Takahashi S, Kobayashi N.  
Microb Drug Resist. 2017 May 15. doi: 10.1089/mdr.2016.0328. [Epub ahead of print]  
PMID: 28504916

12. Detection of picobirnaviruses in vervet monkeys (*Chlorocebus sabaeus*): Molecular characterization of complete genomic segment-2.

Gallagher CA, Navarro R, Cruz K, Aung MS, Ng A, Bajak E, Beierschmitt A, Lawrence M, Dore KM, Ketzis J, Malik YS, Kobayashi N, Ghosh S.  
Virus Res. 2017 Feb 15;230:13–18. doi: 10.1016/j.virusres.2016.12.021. Epub 2017 Jan 3. PMID:28057480

13. Whole genome analysis provides evidence for porcine-to-simian interspecies transmission of rotavirus-A.

Navarro R, Aung MS, Cruz K, Ketzis J, Gallagher CA, Beierschmitt A, Malik YS, Kobayashi N, Ghosh S.  
Infect Genet Evol. 2017 Apr;49:21–31. doi: 10.1016/j.meegid.2016.12.026. Epub 2016 Dec 28. PMID:28039076

14. Molecular Characterization of Methicillin-Resistant *Staphylococcus aureus* from Outpatients in Northern Japan: Increasing Tendency of ST5/ST764 MRSA-IIa with Arginine Catabolic Mobile Element.

Aung MS, Kawaguchiya M, Urushibara N, Sumi A, Ito M, Kudo K, Morimoto S, Hosoya S, Kobayashi N.  
Microb Drug Resist. 2017 Jul;23(5):616–625. doi: 10.1089/mdr.2016.0176. Epub 2016 Nov 21. PMID: 27869532

15. Distribution of two distinct rotavirus B (RVB) strains in the north-central Bangladesh and evidence for reassortment event among human RVB revealed by whole genomic analysis.

Aung MS, Nahar S, Aida S, Paul SK, Hossain MA, Ahmed S, Haque N, Ghosh S, Malik YS, Urushibara N, Kawaguchiya M, Sumi A, Kobayashi N.  
Infect Genet Evol. 2017 Jan;47:77–86. doi: 10.1016/j.meegid.2016.11.001. Epub 2016 Nov 4. PMID: 27825911

16. Effect of temperature, relative humidity and rainfall on dengue fever and leptospirosis infections in Manila, the Philippines.

Sumi A, Telan EF, Chagan-Yasutan H, Piolo MB, Hattori T, Kobayashi N.  
Epidemiol Infect. 2017 Jan;145(1):78–86. Epub 2016 Sep 9. PMID:27608858

17. Multidrug Resistance in Non-PCV13 Serotypes of *Streptococcus pneumoniae* in Northern Japan, 2014.

Kawaguchiya M, Urushibara N, Kobayashi N.  
Microb Drug Resist. 2017 Mar;23(2):206–214. doi: 10.1089/mdr.2016.0054. Epub 2016 Jun 3. PMID:27257915

18. Genetic characteristics of VanA-type vancomycin-resistant *Enterococcus faecalis* and *Enterococcus faecium* in Cuba.

Quiñones D, Aung MS, Sousa Martins JP, Urushibara N, Kobayashi N.  
New Microbes New Infect. 2017 Dec 8;21:125-127. doi: 10.1016/j.nmni.2017.12.001.  
eCollection 2018 Jan. PMID: 29348921

19. Therapeutics and Immunoprophylaxis against Noroviruses and Rotaviruses.

Ghosh S, Malik YS, Kobayashi N.  
Curr Drug Metab. 2017 Sep 12. doi: 10.2174/1389200218666170912161449. [Epub ahead of print] PMID: 28901254

20. Identification of a PVL-negative SCCmec-IVa sublineage of the methicillin-resistant *Staphylococcus aureus* CC80 lineage: understanding the clonal origin of CA-MRSA.

Edslev SM, Westh H, Andersen PS, Skov R, Kobayashi N, Bartels MD, Vandenesch F, Petersen A, Worning P, Larsen AR, Stegger M.  
Clin Microbiol Infect. 2017 Jun 29. pii: S1198-743X(17)30346-4. doi: 10.1016/j.cmi.2017.06.022. [Epub ahead of print] PMID: 28668467

21. First report of serotype 23B *Streptococcus pneumoniae* isolated from an adult patient with invasive infection in Japan.

Takamatsu A, Kawaguchiya M, Chang B, Ito M, Hirano Y, Katsuta S, Matsuzaka S, Serizawa Y, Kobayashi N.  
New Microbes New Infect. 2017 Mar 9;17:96-97. doi: 10.1016/j.nmni.2017.02.008.  
eCollection 2017 May. PMID: 28417006

22. Unexpected detection of porcine rotavirus C strains carrying human origin VP6 gene.

Kattoor JJ, Saurabh S, Malik YS, Sircar S, Dhama K, Ghosh S, Bányai K, Kobayashi N, Singh RK.  
Vet Q. 2017 Dec;37(1):252-261. doi: 10.1080/01652176.2017.1346849. PMID: 28643555

23. OncoE6 Positivity among VIA Positive Suspected Cases from Colposcopy Clinic of Mymensingh Medical College Hospital, Mymensingh.

Nahar F, Hossain MA, Paul SK, Ahmed MU, Khatun S, Akhter N, Bhuiyan GR, Nasreen SA, Roy S, Barman TK, Laskar N, Begum H, Abedin S, Haque N, Ahmed S, Kobayashi N.  
Mymensingh Med J. 2017 Oct;26(4):879-884. PMID: 29208879

## ○その他論文 (2017年)

小林宣道、川口谷充代、漆原範子、メイジ ソウアウン. グローバル感染症と薬剤耐性菌対策の動向～最近のMRSA、薬剤耐性肺炎球菌の特徴について～. 産業医学ジャーナル、2017、40:52-57.

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## ○Pub Med 掲載論文 (2016 年)

1. Whole genomic analysis of G2P[4] human Rotaviruses in Mymensingh, north-central Bangladesh. Aida S, Nahar S, Paul SK, Hossain MA, Kabir MR, Sarkar SR, Ahmed S, Ghosh S, Urushibara N, Kawaguchiya M, Aung MS, Sumi A, Kobayashi N.

Heliyon. 2016 Oct 1;2(9):e00168.

PMID: 27722206 Free PMC Article

2. Effect of temperature, relative humidity and rainfall on dengue fever and leptospirosis infections in Manila, the Philippines.

Sumi A, Telan EF, Chagan-Yasutan H, Piolo MB, Hattori T, Kobayashi N.

Epidemiol Infect. 2016 Sep 9:1-9. [Epub ahead of print]

PMID: 27608858

3. First report of Panton-Valentine leukocidin-positive methicillin-susceptible *Staphylococcus aureus* ST88 harbouring  $\Phi$ Sa2usa isolated from refractory breast abscesses in Japan.

Togashi A, Aung MS, Yoto Y, Akane Y, Tsugawa T, Kawaguchiya M, Tsutsumi H, Kobayashi N. *New Microbes New Infect.* 2016 Jun 11;13:62-4. doi: 10.1016/j.nmni.2016.06.006. eCollection 2016 Sep.

PMID: 27453786 Free PMC Article

4. Multidrug Resistance in Non-PCV13 Serotypes of *Streptococcus pneumoniae* in Northern Japan, 2014.

Kawaguchiya M, Urushibara N, Kobayashi N.

*Microb Drug Resist.* 2016 Jun 3. [Epub ahead of print]

PMID: 27257915

5. Drug resistance and genetic characteristics of clinical isolates of staphylococci in Myanmar: high prevalence of PVL among methicillin-susceptible *Staphylococcus aureus* belonging to various sequence types.

Aung MS, Zi H, Nwe KM, Maw WW, Aung MT, Min WW, Nyein N, Kawaguchiya M, Urushibara N, Sumi A, Kobayashi N. *New Microbes New Infect.* 2016 Jan 1;10:58-65. doi: 10.1016/j.nmni.2015.12.007. eCollection 2016 Mar.

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6. Multispecies reassortant bovine rotavirus strain carries a novel simian G3-like VP7 genotype.



Malik YS, Kumar N, Sharma K, Saurabh S, Dhama K, Prasad M, Ghosh S, Bányai K, Kobayashi N, Singh RK.

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7 . Detection of ST772 Panton-Valentine leukocidin-positive methicillin-resistant *Staphylococcus aureus* (Bengal Bay clone) and ST22 *S. aureus* isolates with a genetic variant of elastin binding protein in Nepal.

Pokhrel RH, Aung MS, Thapa B, Chaudhary R, Mishra SK, Kawaguchiya M, Urushibara N, Kobayashi N.

New Microbes New Infect. 2016 Feb 18;11:20-7. doi: 10.1016/j.nmni.2016.02.001. eCollection 2016 May.

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8 . Time-series analysis of monthly age-specific numbers of newly registered cases of active tuberculosis in Japan from 1998 to 2013.

Kohei Y, Sumi A, Kobayashi N. *Epidemiol Infect.* 2016 Aug;144(11):2401-14. doi: 10.1017/S0950268816000546. Epub 2016 Mar 16.

PMID: 26979927

9 . Emerging non-PCV13 serotypes of noninvasive *Streptococcus pneumoniae* with macrolide resistance genes in northern Japan.

Kawaguchiya M, Urushibara N, Aung MS, Morimoto S, Ito M, Kudo K, Sumi A, Kobayashi N.

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PMID: 26909157 Free PMC Article

1 0 . Molecular Detection of *Rickettsia felis* in Humans, Cats, and Cat Fleas in Bangladesh, 2013-2014.

Ahmed R, Paul SK, Hossain MA, Ahmed S, Mahmud MC, Nasreen SA, Ferdouse F, Sharmi RH, Ahamed F, Ghosh S, Urushibara N, Aung MS, Kobayashi N. *Vector Borne Zoonotic Dis.* 2016 May;16(5):356-8. doi: 10.1089/vbz.2015.1886. Epub 2016 Feb 22.

PMID: 26901499

1 1 . Novel Structures and Temporal Changes of Arginine Catabolic Mobile Elements in Methicillin-Resistant *Staphylococcus aureus* Genotypes ST5-MRSA-II and ST764-MRSA-II in Japan.

Urushibara N, Kawaguchiya M, Onishi M, Mise K, Aung MS, Kobayashi N. *Antimicrob Agents Chemother.* 2016 Apr 22;60(5):3119-22. doi: 10.1128/AAC.02356-15. Print 2016 May.

PMID: 26856835

1 2 . Distribution of two distinct rotavirus B (RVB) strains in the north-central Bangladesh and evidence for reassortment event among human RVB revealed by whole genomic analysis.

Aung MS, Nahar S, Aida S, Paul SK, Hossain MA, Ahmed S, Haque N, Ghosh S, Malik YS, Urushibara N, Kawaguchiya M, Sumi A, Kobayashi N.

*Infect Genet Evol.* 2016 Nov 4. pii: S1567-1348(16)30441-5. doi: 10.1016/j.meegid.2016.11.001. [Epub ahead of print]

PMID: 27825911

1 3 . Molecular characterization of methicillin-resistant *Staphylococcus aureus* (MRSA) from outpatients in northern Japan : increasing tendency of ST5/ST764 MRSA-IIa with arginine catabolic mobile element (ACME II').

Aung MS, Kawaguchiya M, Urushibara N, Sumi A, Ito M, Kudo K, Morimoto S, Hosoya S, Kobayashi N. *Microb Drug Resist.* 2016 Nov 21. [Epub ahead of print] PMID: 27869532

1 4 . Whole genome analysis provides evidence for porcine-to-simian interspecies transmission of rotavirus-A.

Navarro R, Aung MS, Cruz K, Ketzis J, Gallagher CA, Beierschmitt A, Malik YS, Kobayashi N, Ghosh S.

*Infect Genet Evol.* 2016 Dec 28;49:21-31. doi: 10.1016/j.meegid.2016.12.026. [Epub ahead of print] PMID: 28039076

1 5 . Detection of picobirnaviruses in vervet monkeys (*Chlorocebus sabaeus*): Molecular characterization of complete genomic segment-2.

Gallagher CA, Navarro R, Cruz K, Aung MS, Ng A, Bajak E, Beierschmitt A, Lawrence M, Dore KM, Ketzis J, Malik YS, Kobayashi N, Ghosh S.

*Virus Res.* 2017 Feb 15;230:13-18. doi: 10.1016/j.virusres.2016.12.021. PMID: 28057480

1 6 . Analysis of porcine rotavirus A enterotoxin gene for structure-function relationship.

Saurabh S, Sircar S, Kattoor JJ, Ghosh S, Kobayashi N, Banyai K, Kumar OR, De U, Sahoo NR, Dhama K, Malik YS.

*J Vet Sci.* 2017 Jan 4. [Epub ahead of print]

## ○その他論文 (2016 年)

1 . Usage of Silver-Stained Polyacrylamide Gels Electrophoresis (PAGE) for Detection of Rotavirus. *Infection by Direct Identification of Viral Nucleic Acid.*

Kabir MR, Afrose R, Shahidullah AS M, Hossain MA, Paul SK, Rahman M, Kobayashi N. *Bangladesh Journal of Medical Science.* 2016. 15:154-159

2 . Antimicrobial Susceptibility Pattern of Enterococci Isolated from Clinical Specimens at Mymensingh Medical College Hospital, Mymensingh, Bangladesh

3 . Bobby F, Ahmed S, Paul SK, Nasreen SA, Haque N, Roy S, Ahamed F, Monwar S, Kobayashi N, Hossain MA. *J Bacteriol Mycol Open Access* 3(3): 00061. DOI: 10.15406/jbmoa.2016.03.00061

4 . 小林宣道 (分担執筆). 人獣共通感染症 (改訂 3 版)、IV. 細菌性人獣共通感染症 3. 腸球菌感染症 p240-244. 医薬ジャーナル社 (東京)、2016.

5 . 小林宣道. Vaccine Topic ロタウイルスの分子疫学の意義とワクチン導入後の動向. *Vaccine Digest* 第 11 号、3-4 (ジャパンワクチン)、2016.

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- 4 院内感染起因菌、薬剤耐性菌の分子疫学
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- 6 感染症流行に関する時系列解析

## ○Pub Med 掲載論文 (2015 年)

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# 衛生学講座

## ○主な研究内容

- 1 下痢症ウイルスの分子疫学
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