

REFERENCES

- Abramson JS, Baker CJ, Fisher MC, Gerber MA, Meissner HC, Murray DL, et al. Possible association of intussusception with rotavirus vaccination. American Academy of Pediatrics. Committee on Infectious Diseases. Pediatrics. 1999; 104(3): 575.
- Adams WR, Kraft LM. Epizootic diarrhea of infant mice: identification of the etiologic agent. Science. 1963; 141(3578): 359-60.
- Afrikanova I, Fabbretti E, Miozzo MC, Burrone OR. Rotavirus NSP5 phosphorylation is up-regulated by interaction with NSP2. J Gen Virol. 1998; 79(11): 2679-86.
- Agócs MM, Serhan F, Yen C, Mwenda JM, de Oliveira LH, Teleb N, et al. WHO global rotavirus surveillance network: a strategic review of the first 5 years, 2008-2012. MMWR Morb Mortal Wkly Rep. 2014; 63(29): 634-7.
- Akoua-Koffi C, Asse Kouadio V, Yao Atteby JJ. Hospital-based surveillance of rotavirus gastroenteritis among children under 5 years of age in the Republic of Ivory Coast: a cross-sectional study. BMJ Open. 2014; 4(1): e003269.
- Alam MM, Kobayashi N, Ishino M, Ahmed MS, Ahmed MU, Paul SK, et al. Genetic analysis of an ADRV-N-like novel rotavirus strain B219 detected in a sporadic case of adult diarrhea in Bangladesh. Arch Virol. 2007; 152(1): 199-208.
- Amimo JO, Vlasova AN, Saif LJ. Detection and genetic diversity of porcine group A rotaviruses in historic (2004) and recent (2011 and 2012) swine fecal samples in Ohio: predominance of the G9P[13] genotype in nursing piglets. J Clin Microbiol. 2013; 1(4): 1142-51.

- Angel J, Franco MA, Greenberg HB. Rotavirus vaccines: recent developments and future considerations. *Nat Rev Microbiol.* 2007; 5(7): 529-39.
- Bányai K, Martella V, Molnár P, Mihály I, Van Ranst M, Matthijnsens J. Genetic heterogeneity in human G6P[14] rotavirus strains detected in Hungary suggests independent zoonotic origin. *J Infect.* 2009; 59(3): 213-5.
- Bányai K, Papp H, Dandár E, Molnár P, Mihály I, Van Ranst M, et al. Whole genome sequencing and phylogenetic analysis of a zoonotic human G8P[14] rotavirus strain. *Infect Genet Evol.* 2010; 10(7): 1140-4.
- Berois M, Sapin C, Erk I, Poncet D, Cohen J. Rotavirus nonstructural protein NSP5 interacts with major core protein VP2. *J Virol.* 2003; 77(3): 1757-63.
- Bishop RF, Davidson GP, Holmes IH, Ruck BJ. Virus particles in epithelial cells of duodenal mucosa from children with acute non-bacterial gastroenteritis. *Lancet.* 1973; 2(7841): 1281-3.
- Bohl EH, Saif LJ, Theil KW, Agnes AG, Cross RF. Porcine pararotavirus: detection, differentiation from rotavirus, and pathogenesis in gnotobiotic pigs. *J Clin Microbiol.* 1982; 15(2): 312-9.
- Brandt CD, Kim HW, Rodriguez WJ, Thomas L, Yolken RH, Arrobio JO, et al. Comparison of direct electron microscopy, immune electron microscopy, and rotavirus enzyme-linked immunosorbent assay for detection of gastroenteritis viruses in children. *J Clin Microbiol.* 1981; 13(5): 976-81.
- Bridger JC, Brown JF. Prevalence of antibody to typical and atypical rotaviruses in pigs. *Vet Rec.* 1985; 116(2): 50.
- Bridger JC, Burke B, Beards GM, Desselberger U. The pathogenicity of two porcine rotaviruses differing in their in vitro growth characteristics and genes 4. *J Gen Virol.* 1992; 73(11): 3011-5.

- Burke B, McCrae MA, Desselberger U. Sequence analysis of two porcine rotaviruses differing in growth in vitro and in pathogenicity: distinct VP4 sequences and conservation of NS53, VP6 and VP7 genes. *J Gen Virol.* 1994; 75(9): 2205-12.
- Carreño-Torres JJ, Gutiérrez M, Arias CF, López S, Isa P. Characterization of viroplasm formation during the early stages of rotavirus infection. *Virol J.* 2010; 7: 350-61.
- Centers for Disease Control and Prevention (CDC). Intussusception among recipients of rotavirus vaccine--United States, 1998-1999. *MMWR Morb Mortal Wkly Rep.* 1999a; 48(27): 577-81.
- Centers for Disease Control and Prevention (CDC). Withdrawal of rotavirus vaccine recommendation. *MMWR Morb Mortal Wkly Rep.* 1999b; 48(43): 1007.
- Centers for Disease Control and Prevention (CDC). Rotavirus surveillance--worldwide, 2001-2008. *MMWR Morb Mortal Wkly Rep.* 2008; 57(46): 1255-7.
- Centers for Disease Control and Prevention (CDC). Rotavirus surveillance --- worldwide, 2009. *MMWR Morb Mortal Wkly Rep.* 2011; 60(16): 514-6.
- Chaimongkol N, Khamrin P, Suantai B, Saikhreang W, Thongprachum A, Malasao R, et al. A wide variety of diarrhea viruses circulating in pediatric patients in Thailand. *Clin Lab.* 2012a; 58(1-2): 117-23.
- Chaimongkol N, Khamrin P, Malasao R, Thongprachum A, Ushijima H, Maneekarn N. Genotypic linkages of gene segments of rotaviruses circulating in pediatric patients with acute gastroenteritis in Thailand. *Infect Genet Evol.* 2012b; 12(7): 1381-91.

- Chandler-Bostock R, Hancox LR, Nawaz S, Watts O, Iturriza-Gomara M, Mellits KM. Genetic diversity of porcine group A rotavirus strains in the UK. *Vet Microbiol.* 2014; 173(1-2): 27-37.
- Chang HG, Smith PF, Ackelsberg J, Morse DL, Glass RI. Intussusception, rotavirus diarrhea, and rotavirus vaccine use among children in New York state. *Pediatrics.* 2001; 108(1): 54-60.
- Chan-It W, Khamrin P, Saekhow P, Pantip C, Thongprachum A, Peerakome S, et al. Multiple combinations of P[13]-like genotype with G3, G4, and G5 in porcine rotaviruses. *J Clin Microbiol.* 2008; 46(4): 1169-73.
- Chasey D, Banks J. The commonest rotaviruses from neonatal lamb diarrhoea in England and Wales have atypical electropherotypes. *Vet Rec.* 1984; 115(13): 326-7.
- Chasey D, Bridger JC, McCrae MA. A new type of atypical rotavirus in pigs. *Arch Virol.* 1986; 89(1-4): 235-43.
- Chen D, Zeng CQ, Wentz MJ, Gorziglia M, Estes MK, Ramig RF. Template-dependent, in vitro replication of rotavirus RNA. *J Virol.* 1994; 68(11): 7030-9.
- Chen Y, Zhu W, Sui S, Yin Y, Hu S, Zhang X. Whole genome sequencing of lamb rotavirus and comparative analysis with other mammalian rotaviruses. *Virus Genes.* 2009; 38(2): 302-10.
- Ciarlet M, Liprandi F, Conner ME, Estes MK. Species specificity and interspecies relatedness of NSP4 genetic groups by comparative NSP4 sequence analyses of animal rotaviruses. *Arch Virol.* 2000; 145(2): 371-83.
- Ciarlet M, Conner ME, Finegold MJ, Estes MK. Group A rotavirus infection and age-dependent diarrheal disease in rats: a new animal model to study the pathophysiology of rotavirus infection. *J Virol.* 2002; 76(1): 41-57.

- Collins PJ, Martella V, O'Shea H. Detection and characterization of group C rotaviruses in asymptomatic piglets in Ireland. *J Clin Microbiol.* 2008; 46(9): 2973-9.
- Cook N, Bridger J, Kendall K, Gomara MI, El-Attar L, Gray J. The zoonotic potential of rotavirus. *J Infect.* 2004; 48(4): 289-302.
- Cooney MA, Gorrell RJ, Palombo EA. Characterisation and phylogenetic analysis of the VP7 proteins of serotype G6 and G8 human rotaviruses. *J Med Microbiol.* 2001; 50(5): 462-7.
- Cox E, Christenson JC. Rotavirus. *Pediatr Rev.* 2012; 33(10): 439-47.
- Das BK, Gentsch JR, Cicirello HG, Woods PA, Gupta A, Ramachandran M, et al. Characterization of rotavirus strains from newborns in New Delhi, India. *J Clin Microbiol.* 1994; 32(7): 1820-2.
- de Zoysa I, Feachem RG. Interventions for the control of diarrhoeal diseases among young children: rotavirus and cholera immunization. *Bull World Health Organ.* 1985; 63(3): 569-83.
- Dennehy PH. Rotavirus vaccines: an overview. *Clin Microbiol Rev.* 2008; 21(1): 198-208
- Dennehy PH. Viral gastroenteritis in children. *Pediatr Infect Dis J.* 2011; 30(1): 63-4.
- Desselberger U. Rotaviruses. *Virus Res.* 2014; 190: 75-96.
- Devitt CM, Reynolds DL. Characterization of a group D rotavirus. *Avian Dis.* 1993; 37(3): 749-55.
- Duan ZJ, Li DD, Zhang Q, Liu N, Huang CP, Jiang X, et al. Novel human rotavirus of genotype G5P[6] identified in a stool specimen from a Chinese girl with diarrhea. *J Clin Microbiol.* 2007; 45(5): 1614-7.

- Dunn SJ, Greenberg HB, Ward RL, Nakagomi O, Burns JW, Vo PT, et al. Serotypic and genotypic characterization of human serotype 10 rotaviruses from asymptomatic neonates. *J. Clin Microbiol.* 1993; 31(1): 165-9.
- Eichwald C, Rodriguez JF, Burrone OR Characterization of rotavirus NSP2/NSP5 interactions and the dynamics of viroplasm formation. *J Gen Virol.* 2004; 85(3): 625-34.
- Eiden J, Vonderfecht S, Theil K, Torres-Medina A, Yolken RH. Genetic and antigenic relatedness of human and animal strains of antigenically distinct rotaviruses. *J Infect Dis.* 1986; 154(6): 972-82.
- Elena SF, Carrasco P, Daròs JA, Sanjuán R. Mechanisms of genetic robustness in RNA viruses. *EMBO Rep.* 2006; 7(2): 168-73.
- Estes MK, Kapikian AZ. Rotaviruses. In: Knipe DM, Howley PM, Griffin DE, Lamb RA, Martin MA, Roizman B, Straus SE eds. *Fields Virology*. 5th ed. Vol 2. Philadelphia, PA: Lippincott Williams & Wilkins. 2006. pp. 1917-74.
- Estes MK. Rotaviruses and their replication. In: Knipe DM, Howley PM eds. *Fields virology*. 4th ed. Vol 2. Philadelphia, PA: Lippincott Williams & Wilkins. 2001. pp. 1747-86.
- Estes MK, Cohen J. Rotavirus gene structure and function. *Microbiol Rev.* 1989; 53(4): 410-49.
- Estes MK, Greenberg HB. Rotaviruses. In: Knipe DM, Howley P, et al. eds. *Fields Virology*. 6th ed. Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins. 2013. pp. 1347-401.
- Estes MK, Kapikian AZ. Rotaviruses. In: Knipe DM, Howley PM, Griffin DE, Lamb RA, Martin MA, Roizman B, Straus SE eds. *Fields Virology*. 5th ed. Vol. 2. Philadelphia, PA: Lippincott Williams & Wilkins/Wolters Kluwer. 2007. pp. 1917-4.

- Fischer TK, Gentsch JR. Rotavirus typing methods and algorithms. *Rev Med Virol.* 2004; 14(2): 71-82.
- Fletcher S, Van Hal S, Andresen D, McLaws ML, Stark D, Harkness J, et al. Gastrointestinal pathogen distribution in symptomatic children in Sydney, Australia. *J Epidemiol Glob Health.* 2013; 3(1): 11-21.
- Flewett TH, Bryden AS, Davies H, Woode GN, Bridger JC, Derrick JM. Relation between viruses from acute gastroenteritis of children and newborn calves. *Lancet.* 1974; 2(7872): 61-3.
- Flores J, Sears J, Green KY, Perez-Schael I, Morantes A, Daoud G, et al. Genetic stability of rotaviruses recovered from asymptomatic neonatal infections. *J Virol.* 1988; 62(12): 4778-81.
- Fujii Y, Shimoike T, Takagi H, Murakami K, Todaka-Takai R, Park Y, et al. Amplification of all 11 RNA segments of group A rotaviruses based on reverse transcription polymerase chain reaction. *Microbiol Immunol.* 2012; 56(9): 630-8.
- Fujiwara Y, Nakagomi O. Interspecies sharing of two distinct nonstructural protein 1 alleles among human and animal rotaviruses as revealed by dot blot hybridization. *J Clin Microbiol.* 1997; 35(10): 2703-5.
- Gentsch JR, Glass RI, Woods P, Gouvea V, Gorziglia M, Flores J, et al. Identification of group A rotavirus gene 4 types by polymerase chain reaction. *J Clin Microbiol.* 1992; 30(6): 1365-73.
- Gentsch JR, Laird AR, Bielfelt B, Griffin DD, Banyai K, Ramachandran M, et al. Serotype diversity and reassortment between human and animal rotavirus strains: implications for rotavirus vaccine programs. *J Infect Dis.* 2005; 1: 192.

- Ghosh S, Varghese V, Samajdar S, Bhattacharya SK, Kobayashi N, Naik TN. Evidence for independent segregation of the VP6- and NSP4-encoding genes in porcine group A rotavirus G6P[13] strains. *Arch Virol.* 2007a; 152(2): 423-9.
- Ghosh S, Varghese V, Samajdar S, Sinha M, Naik TN, Kobayashi N. Evidence for bovine origin of VP4 and VP7 genes of human group A rotavirus G6P[14] and G10P[14] strains. *J Clin Microbiol.* 2007b; 45(8): 2751-3.
- Ghosh S, Kobayashi N. Whole-genomic analysis of rotavirus strains: current status and future prospects. *Future Microbiol.* 2011; 6(9): 1049-65.
- Ghosh S, Urushibara N, Taniguchi K, Kobayashi N. Whole genomic analysis reveals the porcine origin of human G9P[19] rotavirus strains Mc323 and Mc345. *Infect Genet Evol.* 2012; 12(2): 471-7.
- Gladstone M, White S, Kafulafula G, Neilson JP, van den Broek N. Post-neonatal mortality, morbidity, and developmental outcome after ultrasound-dated preterm birth in rural Malawi: a community-based cohort study. *PLoS Med.* 2011; 8(11): e1001121.
- Gómara MI, Green J, Gray J. Methods of rotavirus detection, sero- and genotyping, sequencing, and phylogenetic analysis. *Methods Mol Med.* 2000; 34: 189-216.
- Gouvea V, Glass RI, Woods P, Taniguchi K, Clark HF, Forrester B, et al. Polymerase chain reaction amplification and typing of rotavirus nucleic acid from stool specimens. *J Clin Microbiol.* 1990; 28(2): 276-82.
- Gouvea V, de Castro L, Timenetsky MC, Greenberg H, Santos N. Rotavirus serotype G5 associated with diarrhea in Brazilian children. *J Clin Microbiol.* 1994a; 32(5): 1408-9.

- Gouvea V, Santos N, Timenetsky Mdo C. Identification of bovine and porcine rotavirus G types by PCR. *J Clin Microbiol.* 1994b; 32(5): 1338-40.
- Gouvea V, Santos N, Timenetsky Mdo C. VP4 typing of bovine and porcine group A rotaviruses by PCR. *J Clin Microbiol.* 1994c; 32(5): 1333-7.
- Gouvea V, Brantly M. Is rotavirus a population of reassortants? *Trends Microbiol.* 1995; 3(4): 159-62.
- He B, Yang F, Yang W, Zhang Y, Feng Y, Zhou J, et al. Characterization of a novel G3P[3] rotavirus isolated from a lesser horseshoe bat: a distant relative of feline/canine rotaviruses. *J Virol.* 2013; 87(22): 12357-66.
- Hochwald C, Kivela L. Rotavirus vaccine, live, oral, tetravalent (RotaShield). *Pediatr Nurs.* 1999; 25(2): 203-4, 207.
- Hoshino Y, Wyatt RG, Greenberg HB, Flores J, Kapikian AZ. Serotypic similarity and diversity of rotaviruses of mammalian and avian origin as studied by plaque-reduction neutralization. *J Infect Dis.* 1984; 149(5): 694-702.
- Huang JA, Nagesha HS, Holmes IH. Comparative sequence analysis of VP4s from five Australian porcine rotaviruses: implication of an apparent new P-type. *Virology.* 1993; 196(1): 319-27.
- Iizuka M, Kaga E, Chiba M, Masamune O, Gerna G, Nakagomi O. Serotype G6 human rotavirus sharing a conserved genetic constellation with natural reassortants between members of the bovine and AU-1 genogroups. *Arch Virol.* 1994; 135(3-4): 427-32.
- Isegawa Y, Nakagomi O, Nakagomi T, Ueda S. A VP4 sequence highly conserved in human rotavirus strain AU-1 and feline rotavirus strain FRV-1. *J Gen Virol.* 1992; 73(8): 1939-46.

- Iturriza-Gómara M, Cubitt D, Steele D, Green J, Brown D, Kang et al. Characterisation of rotavirus G9 strains isolated in the UK between 1995 and 1998. *J Med Virol.* 2000; 61(4): 510-7.
- Iturriza-Gómara M, Kang G, Gray J. Rotavirus genotyping: keeping up with an evolving population of human rotaviruses. *J Clin Virol.* 2004; 31(4): 259-65.
- Jayavasud C, Hooniwat Y, Sagaunwong S, Jayavasud J, Chatiyononda K. A long term study of rotavirus infection in Thai infants and children with diarrhoea. *Southeast Asian J Trop Med Public Health.* 1982; 13(3): 373-6.
- Jere KC, Mlera L, Page NA, van Dijk AA, O'Neill HG. Whole genome analysis of multiple rotavirus strains from a single stool specimen using sequence-independent amplification and 454® pyrosequencing reveals evidence of intergenotype genome segment recombination. *Infect Genet Evol.* 2011; 11(8): 2072-82.
- Jin Y, Ye XH, Fang ZY, Li YN, Yang XM, Dong QL, et al. Molecular epidemic features and variation of rotavirus among children with diarrhea in Lanzhou, China, 2001-2006. *World J Pediatr.* 2008; 4(3): 197-201.
- Jiraphongsa C, Bresee JS, Pongsuwanna Y, Kluabwang P, Poonawagul U, Arpornitip P, et al. Epidemiology and burden of rotavirus diarrhea in Thailand: results of sentinel surveillance. *J Infect Dis.* 2005; 192(1): 87-93.
- Kapikian AZ, Hoshino Y, Chanock RM. Rotaviruses. In: Knipe DM, Howley PM, Griffin DE, Lamb RA, Martin MA, Roizman B, Straus SE eds. *Fields virology.* 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins. 2001. p. 1787-833.
- Katsuda K, Kohmoto M, Kawashima K, Tsunemitsu H. Frequency of enteropathogen detection in suckling and weaned pigs with diarrhea in Japan. *J Vet Diagn Invest.* 2006; 18(4): 350-4.

- Kawai K, O'Brien MA, Gouveia MG, Mast TC, El Khoury AC. Burden of rotavirus gastroenteritis and distribution of rotavirus strains in Asia: a systematic review. 2012; 30(7): 1244-54.
- Khamrin P, Peerakome S, Wongsawasdi L, Tonusin S, Sornchai P, Maneerat V, et al. Emergence of human G9 rotavirus with an exceptionally high frequency in children admitted to hospital with diarrhea in Chiang Mai, Thailand. *J Med Virol.* 2006a; 78(2): 273-80.
- Khamrin P, Maneekarn N, Peerakome S, Yagyu F, Okitsu S, Ushijima H. Molecular characterization of a rare G3P[3] human rotavirus reassortant strain reveals evidence for multiple human-animal interspecies transmissions. *J Med Virol.* 2006b; 78(7): 986-94.
- Khamrin P, Maneekarn N, Peerakome S, Chan-it W, Yagyu F, Okitsu S, et al. Novel porcine rotavirus of genotype P[27] shares new phylogenetic lineage with G2 porcine rotavirus strain. *Virology.* 2007a; 361(2): 243-52.
- Khamrin P, Peerakome S, Tonusin S, Malasao R, Okitsu S, Mizuguchi M, et al. Changing pattern of rotavirus G genotype distribution in Chiang Mai, Thailand from 2002 to 2004: decline of G9 and reemergence of G1 and G2. *J Med Virol.* 2007b; 79(11): 1775-82.
- Khamrin P, Maneekarn N, Peerakome S, Tonusin S, Phan TG, Okitsu S, et al. Molecular characterization of rare G3P[9] rotavirus strains isolated from children hospitalized with acute gastroenteritis. *J Med Virol.* 2007c; 79(6): 843-51.
- Khamrin P, Thongprachum A, Chaimongkol N, Chusri P, Okitsu S, Ushijima H, et al. Evolutionary consequences of G9 rotaviruses circulating in Thailand. *Infect Genet Evol.* 2009a; 9(6): 1394-9.

- Khamrin P, Maneekarn N, Peerakome S, Malasao R, Thongprachum A, Chan-It W, et al. Molecular characterization of VP4, VP6, VP7, NSP4, and NSP5/6 genes identifies an unusual G3P[10] human rotavirus strain. *J Med Virol.* 2009b; 81(1): 176-82.
- Khamrin P, Maneekarn N, Malasao R, Nguyen TA, Ishida S, Okitsu S, et al. Genotypic linkages of VP4, VP6, VP7, NSP4, NSP5 genes of rotaviruses circulating among children with acute gastroenteritis in Thailand. *Infect Genet Evol.* 2010; 10(4): 467-72.
- Khananurak K, Vutithanachot V, Simakachorn N, Theamboonlers A, Chongsrisawat V, Poovorawan Y. Prevalence and phylogenetic analysis of rotavirus genotypes in Thailand between 2007 and 2009. *Infect Genet Evol.* 2010; 10(4): 537-45.
- Kim HJ, Park SI, Ha TP, Jeong YJ, Kim HH, Kwon HJ, et al. Detection and genotyping of Korean porcine rotaviruses. *Vet Microbiol.* 2010; 144(3-4): 274-86.
- Kindler E, Trojnar E, Heckel G, Otto PH, Johne R. Analysis of rotavirus species diversity and evolution including the newly determined full-length genome sequences of rotavirus F and G. *Infect Genet Evol.* 2013; 14: 58-67.
- Kittigul L, Pombubpa K, Rattanatham T, Diraphat P, Utrarachkij F, Pungchitton S, et al. Development of a method for concentrating and detecting rotavirus in oysters. *Int J Food Microbiol.* 2008; 122(1-2): 204-10.
- Kittigul L, Panjangampatthana A, Rupprom K, Pombubpa K. Genetic diversity of rotavirus strains circulating in environmental water and bivalve shellfish in Thailand. *Int J Environ Res Public Health.* 2014a; 11(2): 1299-311.

- Kittigul L, Swangsri T, Pombubpa K, Howteerakul N, Diraphat P, Hirunpetcharat C. Rotavirus infection in children and adults with acute gastroenteritis in Thailand. *Southeast Asian J Trop Med Public Health*. 2014b; 45(4): 816-24.
- Kramarz P, France EK, Destefano F, Black SB, Shinefield H, Ward JI, et al. Population-based study of rotavirus vaccination and intussusception. *Pediatr Infect Dis J*. 2001; 20(4): 410-6.
- Kudo S, Zhou Y, Cao XR, Yamanishi S, Nakata S, Ushijima H. Molecular characterization in the VP7, VP4 and NSP4 genes of human rotavirus serotype 4 (G4) isolated in Japan and Kenya. *Microbiol Immunol*. 2001; 45(2): 167-71.
- Kuga K, Miyazaki A, Suzuki T, Takagi M, Hattori N, Katsuda K, et al. Genetic diversity and classification of the outer capsid glycoprotein VP7 of porcine group B rotaviruses. *Arch Virol*. 2009; 154(11): 1785-95.
- Li B, Clark HF, Gouvea V. Nucleotide sequence of the VP4-encoding gene of an unusual human rotavirus (HCR3). *Virology*. 1993; 196(2): 825-30.
- Lin SL, Tian P. Detailed computational analysis of a comprehensive set of group A rotavirus NSP4 proteins. *Virus Genes*. 2003; 26(3): 271-82.
- Linhares AC, Velázquez FR, Pérez-Schael I, Sáez-Llorens X, Abate H, Espinoza F, et al. Efficacy and safety of an oral live attenuated human rotavirus vaccine against rotavirus gastroenteritis during the first 2 years of life in Latin American infants: a randomised, double-blind, placebo-controlled phase III study. *Lancet*. 2008; 371(9619): 1181-9.
- Maiklang O, Vutithanachot V, Vutithanachot C, Hacharoen P, Chieochansin T, Poovorawan Y. Prevalence of group A genotype human rotavirus among children with diarrhea in Thailand, 2009-2011. *Southeast Asian J Trop Med Public Health*. 2012; 43(4): 904-16.

- Malasao R, Saito M, Suzuki A, Imagawa T, Nukiwa-Soma N, Tohma K, et al. Human G3P[4] rotavirus obtained in Japan, 2013, possibly emerged through a human-equine rotavirus reassortment event. *Virus Genes*. 2015; 50(1): 129-33.
- Malherbe H, Harwin R. The cytopathic effects of vervet monkey viruses. *S Afr Med J*. 1963; 37: 407-11.
- Maneekarn N, Ushijima H. Epidemiology of rotavirus infection in Thailand. *Pediatr Int*. 2000; 42(4): 415-21.
- Maneekarn N, Khamrin P, Chan-it W, Peerakome S, Sukchai S, Pringprao K, et al. Detection of rare G3P[19] porcine rotavirus strains in Chiang Mai, Thailand, provides evidence for origin of the VP4 genes of Mc323 and Mc345 human rotaviruses. *J Clin Microbiol*. 2006; 44(11): 4113-9.
- Maneekarn M, Khamrin P. Rotavirus associated gastroenteritis in Thailand. *Virus Dis*. 2014; 25(2): 201-7.
- Martella V, Pratelli A, Greco G, Tempesta M, Ferrari M, Losio MN, et al. Genomic characterization of porcine rotaviruses in Italy. *Clin Diagn Lab Immunol*. 2001; 8(1): 129-32.
- Martella V, Ciarlet M, Banyai K, Lorusso E, Cavalli A, Corrente M, et al. Identification of a novel VP4 genotype carried by a serotype G5 porcine rotavirus strain. *Virology*. 2006a; 346(2): 301-11.
- Martella V, Banyai K, Ciarlet M, Iturriza-Gómara M, Lorusso E, De Grazia S, et al. Relationships among porcine and human P[6] rotaviruses: evidence that the different human P[6] lineages have originated from multiple interspecies transmission events. *Virology*. 2006b; 344(2): 509-19.
- Martella V, Colombrita D, Lorusso E, Draghin E, Fiorentini S, De Grazia S, et al. Detection of a porcine-like rotavirus in a child with enteritis in Italy. *J Clin Microbiol*. 2008; 46(10): 3501-7.

- Martella V, Bányai K, Matthijnsens J, Buonavoglia C, Ciarlet M. Zoonotic aspects of rotaviruses. *Vet Microbiol.* 2010; 140(3-4): 246-55.
- Martella V, Potgieter AC, Lorusso E, De Grazia S, Giammanco GM, Matthijnsens J, et al. A feline rotavirus G3P[9] carries traces of multiple reassortment events and resembles rare human G3P[9] rotaviruses. *J Gen Virol.* 2011; 92(5): 1214-21.
- Marthaler D, Rossow K, Gramer M, Collins J, Goyal S, Tsunemitsu H, et al. Detection of substantial porcine group B rotavirus genetic diversity in the United States, resulting in a modified classification proposal for G genotypes. *Virology.* 2012; 433(1): 85-96.
- Marthaler D, Rossow K, Culhane M, Goyal S, Collins J, Matthijnsens J, et al. Widespread rotavirus H in commercially raised pigs, United States. *Emerg Infect Dis.* 2014; 20(7): 1195-8.
- Matthijnsens J, Rahman M, Martella V, Xuelei Y, De Vos S, De Leener K, et al. Full genomic analysis of human rotavirus strain B4106 and lapine rotavirus strain 30/96 provides evidence for interspecies transmission. *J Virol.* 2006a; 80(8): 3801-10.
- Matthijnsens J, Rahman M, Van Ranst M. Loop model: mechanism to explain partial gene duplications in segmented dsRNA viruses. *Biochem Biophys Res Commun.* 2006b; 340(1): 140-4.
- Matthijnsens J, Rahman M, Van Ranst M. Two out of the 11 genes of an unusual human G6P[6] rotavirus isolate are of bovine origin. *J Gen Virol.* 2008; 89(10): 2630-5.
- Matthijnsens J, Bilcke J, Ciarlet M, Martella V, Bányai K, Rahman M, et al. Rotavirus disease and vaccination: impact on genotype diversity. *Future Microbiol.* 2009; 4(10): 1303-16.

- Matthijnsens J, Ciarlet M, McDonald S.M., Attoui, H., Bányai, K., Brister, J.R., et al. Uniformity of rotavirus strain nomenclature proposed by the rotavirus classification Working Group (RCWG). *Arch Virol.* 2011; 156(8): 1397-413.
- Matthijnsens J, Miño S, Papp H, Potgieter C, Novo L, Heylen E, et al. Complete molecular genome analyses of equine rotavirus A strains from different continents reveal several novel genotypes and a largely conserved genotype constellation. *J Gen Virol.* 2012a; 93(4): 866-75.
- Matthijnsens J, Otto PH, Ciarlet M, Desselberger U, Van Ranst M, Johne R. VP6-sequence-based cutoff values as a criterion for rotavirus species demarcation. *Arch Virol.* 2012b; 157(6): 1177-82.
- Mebus CA, Underdahl NR, Rhodes MB, Twiehaus MJ. Further studies on neonatal calf diarrhea virus. *Proc Annu Meet U S Anim Health Assoc.* 1969; 73: 97-9.
- Mertens PP, Diprose J, Maan S, Singh KP, Attoui H, Samuel AR. Bluetongue virus replication, molecular and structural biology. *Vet Ital.* 2004; 40(4): 426-37.
- Mitui MT, Chan PK, Nelson EA, Leung TF, Nishizono A, Ahmed K. Co-dominance of G1 and emerging G3 rotaviruses in Hong Kong: a three-year surveillance in three major hospitals. *J Clin Virol.* 2011; 50(4): 325-33.
- Miyazaki A, Kuga K, Suzuki T, Kohmoto M, Katsuda K, Tsunemitsu H. Genetic diversity of group A rotaviruses associated with repeated outbreaks of diarrhea in a farrow-to-finish farm: identification of a porcine rotavirus strain bearing a novel VP7 genotype, G26. *Vet Res.* 2011; 42: 112.

- Miyazaki A, Kuga K, Suzuki T, Kohmoto M, Katsuda K, Tsunemitsu H. Annual changes in predominant genotypes of rotavirus A detected in the feces of pigs in various developmental stages raised on a conventional farm. *Vet Microbiol.* 2013; 163(1-2): 162-6.
- Mlera L. Preparatory investigations for developing a transcript-based rotavirus reverse genetics system. (Ph.D. Thesis), North-West University. 2012; 1-250.
- Molinari BL, Lorenzetti E, Otonel RA, Alfieri AF, Alfieri AA. Species H rotavirus detected in piglets with diarrhea, Brazil, 2012. *Emerg Infect Dis.* 2014; 20(6): 1019-22.
- Mori Y, Borgan MA, Ito N, Sugiyama M, Minamoto N. Sequential analysis of nonstructural protein NSP4s derived from group A avian rotaviruses. *Virus Res.* 2002; 89(1): 145-51.
- Mukherjee A, Ghosh S, Bagchi P, Dutta D, Chattopadhyay S, Kobayashi N, et al. Full genomic analyses of human rotavirus G4P[4], G4P[6], G9P[19] and G10P[6] strains from North-eastern India: evidence for interspecies transmission and complex reassortment events. *Clin Microbiol Infect.* 2011; 17(9): 1343-6.
- Munoz M, Alvarez M, Lanza I, Carmenes P. An outbreak of diarrhoea associated with atypical rotaviruses in goat kids. *Res Vet Sci.* 1995; 59(2): 180-2.
- Murphy TV, Gargiullo PM, Massoudi MS, Nelson DB, Jumaan AO, Okoro CA, et al. Intussusception among infants given an oral rotavirus vaccine. *N Engl J Med.* 2001; 344(8): 564-72.
- My PV, Rabaa MA, Donato C, Cowley D, Phat VV, Dung TT, et al. Novel porcine-like human G26P[19] rotavirus identified in hospitalized paediatric diarrhoea patients in Ho Chi Minh City, Vietnam. *J Gen Virol.* 2014; 95(12): 2727-33.

- Nakagomi O, Nakagomi T. Interspecies transmission of rotaviruses studied from the perspective of genogroup. *Microbiol Immunol.* 1993; 37(4): 337-48.
- Nakagomi O, Nakagomi T, Hoshino Y, Flores J, Kapikian AZ. Genetic analysis of a human rotavirus that belongs to subgroup I but has an RNA pattern typical of subgroup II human rotaviruses. *J Clin Microbiol.* 1987; 25(7): 1159-64.
- Nakagomi O, Ohshima A, Aboudy Y, Shif I, Mochizuki M, Nakagomi T, et al. Molecular identification by RNA-RNA hybridization of a human rotavirus that is closely related to rotaviruses of feline and canine origin. *J Clin Microbiol.* 1990; 28(6): 1198-203.
- Nakagomi T, Nakagomi O. RNA-RNA hybridization identifies a human rotavirus that is genetically related to feline rotavirus. *J Virol.* 1989; 63(3): 1431-4.
- Ngo TC, Nguyen, BM, Dang DA, Nguyen HT, Nguyen TT, Tran VN, et al. Molecular epidemiology of rotavirus diarrhoea among children in Haiphong, Vietnam: the emergence of G3 rotavirus. *Vaccine.* 2009; 27: 75-80.
- Nguyen TA, Khamrin P, Trinh QD, Phan TG, Pham le D, Hoang le P, et al. Sequence analysis of Vietnamese P[6] rotavirus strains suggests evidence of interspecies transmission. *J Med Virol.* 2007; 79(12): 1959-65.
- Okada Ji, Urasawa T, Kobayashi N, Taniguchi K, Hasegawa A, Mise K, et al. New P serotype of group A human rotavirus closely related to that of a porcine rotavirus. *J Med Virol.* 2000; 60(1): 63-9.
- Okitsu S, Khamrin P, Thongprachum A, Maneekarn N, Mizuguchi M, Ushijima H. Predominance of porcine P[23] genotype rotaviruses in piglets with diarrhea in northern Thailand. *J Clin Microbiol.* 2011; 49(1): 442-5.

- Otto PH, Ahmed MU, Hotzel H, Machnowska P, Reetz J, Roth B, et al. Detection of avian rotaviruses of groups A, D, F and G in diseased chickens and turkeys from Europe and Bangladesh. *Vet Microbiol.* 2012; 156(1-2): 8-15.
- Palombo EA. Genetic analysis of group A rotaviruses: evidence for interspecies transmission of rotavirus genes. *Virus Genes.* 2002; 24(1): 11-20.
- Parashar UD, Hummelman EG, Bresee JS, Miller MA, Glass RI. Global illness and deaths caused by rotavirus disease in children. *Emerg Infect Dis.* 2003; 9(5): 565-72.
- Parashar UD, Gibson CJ, Bresee JS, Glass RI. Rotavirus and severe childhood diarrhea. *Emerg Infect Dis.* 2006; 12(2): 304-6.
- Parashar UD, Burton A, Lanata C, Boschi-Pinto C, Shibuya K, Steele D, et al. Global mortality associated with rotavirus disease among children in 2004. *J Infect Dis.* 2009; 200(1): 9-15.
- Parra GI, Bok K, Martínez M, Gomez JA. Evidence of rotavirus intragenic recombination between two sublineages of the same genotype. *J Gen Virol.* 2004; 85(6): 1713-6.
- Parra GI, Vidales G, Gomez JA, Fernandez FM, Parreño V, Bok K. Phylogenetic analysis of porcine rotavirus in Argentina: increasing diversity of G4 strains and evidence of interspecies transmission. *Vet Microbiol.* 2008; 126(1-3): 243-50.
- Parwani AV, Lucchelli A, Saif LJ. Identification of group B rotaviruses with short genome electropherotypes from adult cows with diarrhea. *J Clin Microbiol.* 1996; 34(5): 1303-5.
- Pedley S, Bridger JC, Chasey D, McCrae MA. Definition of two new groups of atypical rotaviruses. *J Gen Virol.* 1986; 67(1): 131-7.

- Pongsuwanna Y, Taniguchi K, Choonthanom M, Chiwakul M, Susansook T, Saguanwongse S, et al. Subgroup and serotype distributions of human, bovine, and porcine rotavirus in Thailand. *J Clin Microbiol.* 1989; 27(9): 1956-60.
- Pongsuwanna Y, Taniguchi K, Chiwakul M, Urasawa T, Wakasugi F, Jayavas C, et al. Serological and genomic characterization of porcine rotaviruses in Thailand: detection of a G10 porcine rotavirus. *J Clin Microbiol.* 1996; 34(5): 1050-7.
- Rahman M, Sultana R, Ahmed G, Nahar S, Hassan ZM, Saiada F, et al. Prevalence of G2P[4] and G12P[6] rotavirus, Bangladesh. *Emerg Infect Dis.* 2007; 13(1): 18-24.
- Ramig RF. Genetics of the rotaviruses. *Annu Rev Microbiol.* 1997; 51: 225-55.
- Richardson S, Grimwood K, Gorrell R, Palombo E, Barnes G, Bishop R. Extended excretion of rotavirus after severe diarrhoea in young children. *Lancet.* 1998; 351(9119):1844-8.
- Ruiz-Palacios GM, Pérez-Schae I, Velázquez FR, Abate H, Breuer T, Clemens SC, et al. Safety and efficacy of an attenuated vaccine against severe rotavirus gastroenteritis. *N Engl J Med.* 2006; 354(1): 11-22.
- Ruiz-Palacios GM, Guerrero ML, Bautista-Márquez A, Ortega-Gallegos H, Tuz-Dzib F, Reyes-González L, et al. Dose response and efficacy of a live, attenuated human rotavirus vaccine in Mexican infants. *Pediatrics.* 2007; 120(2): e253-61.
- Saif LJ, Bohl EH, Theil KW, Cross RF, House JA. Rotavirus-like, calicivirus-like, and 23-nm virus-like particles associated with diarrhea in young pigs. *J Clin Microbiol.* 1980; 12(1): 105-11.

- Saif LJ, Rosen BI, Parwani AV. Animal Rotaviruses. In: Kapikian A Ed. *Viral Infections of the Gastrointestinal Tract*. Marcel Dekker, Inc, New York. 1994. pp. 279-367.
- Saikruang W, Khamrin P, Chaimongkol N, Suantai B, Kongkaew A, Kongkaew S, et al. Genetic diversity and novel combinations of G4P[19] and G9P[19] porcine rotavirus strains in Thailand. *Vet Microbiol*. 2013; 161(3-4): 255-62.
- Saikruang W, Khamrin P, Suantai B, Okitsu S, Hayakawa S, Ushijima H, et al. Detection of diarrheal viruses circulating in adult patients in Thailand. *Arch Virol*. 2014; 159(12): 3371-5.
- Sanjuán R, Nebot MR, Chirico N, Mansky LM, Belshaw R. Viral mutation rates. *J Virol*. 2010; 84(19): 9733-48.
- Santos N, Hoshino Y. Global distribution of rotavirus serotypes/genotypes and its implication for the development and implementation of an effective rotavirus vaccine. *Rev Med Virol*. 2005; 15(1): 29-56.
- Santos N, Lima RC, Nozawa CM, Linhares RE, Gouvea V. Detection of porcine rotavirus type G9 and of a mixture of types G1 and G5 associated with Wa-like VP4 specificity: evidence for natural human-porcine genetic reassortment. *J Clin Microbiol*. 1999; 37(8): 2734-6.
- Shen S, Burke B, Desselberger U. Rearrangement of the VP6 gene of a group A rotavirus in combination with a point mutation affecting trimer stability. *J Virol*. 1994; 68(3): 1682-8.
- Simmonds MK, Armah G, Asmah R, Banerjee I, Damanka S, Esona M, et al. New oligonucleotide primers for P-typing of rotavirus strains: Strategies for typing previously untypeable strains. *J Clin Virol*. 2008; 42(4): 368-73.

- Simonsen L, Morens D, Elixhauser A, Gerber M, Van Raden M, Blackwelder W. Effect of rotavirus vaccination programme on trends in admission of infants to hospital for intussusception. *Lancet*. 2001; 358(9289): 1224-9.
- Steyer A, Poljsak-Prijatelj M, Bufon TL, Marcun-Varda N, Marin J. Rotavirus genotypes in Slovenia: unexpected detection of G8P[8] and G12P[8] genotypes. *J Med Virol*. 2007; 79(5): 626-32.
- Steyer A, Poljsak-Prijatelj M, Barlic-Maganja D, Marin J. Human, porcine and bovine rotaviruses in Slovenia: evidence of interspecies transmission and genome reassortment. *J Gen Virol*. 2008; 89(7): 1690-8.
- Svensmark B, Jorsal SE, Nielsen K, Willeberg P. Epidemiological studies of piglet diarrhoea in intensively managed Danish sow herds. I. Pre-weaning diarrhoea. *Acta Vet Scand*. 1989; 30(1): 43-53.
- Tamura K, Peterson D, Peterson N, Stecher G, Nei M, Kumar S. MEGA5: Molecular evolutionary genetics analysis using maximum likelihood, evolutionary distance, and maximum parsimony methods. *Mol Biol Evol*. 2011; 28(10): 2731-9.
- Taniguchi K, Urasawa T, Urasawa S. Species specificity and interspecies relatedness in VP4 genotypes demonstrated by VP4 sequence analysis of equine, feline, and canine rotavirus strains. *Virology*. 1994; 200(2): 390-400.
- Tate JE, Chitambar S, Esposito DH, Sarkar R, Gladstone B, Ramani S, et al. Disease and economic burden of rotavirus diarrhoea in India. *Vaccine*. 2009; 27(5): 18-24.
- Tate JE, Burton AH, Boschi-Pinto C, Steele AD, Duque J, Parashar UD, et al. 2008 estimate of worldwide rotavirus associated mortality in children younger than 5 years before the introduction of universal rotavirus vaccination programmes: a systematic review and meta-analysis. *Lancet Infect Dis*. 2012; 12(2): 136-41.

- Taylor JA, O'Brien JA, Yeager M. The cytoplasmic tail of NSP4, the endoplasmic reticulum-localized non-structural glycoprotein of rotavirus, contains distinct virus binding and coiled coil domains. *MBO J.* 1996; 15(17): 4469-76.
- Teodoroff TA, Tsunemitsu H, Okamoto K, Katsuda K, Kohmoto M, Kawashima K, Nakagomi T, Nakagomi O. Predominance of porcine rotavirus G9 in Japanese piglets with diarrhea: close relationship of their VP7 genes with those of recent human G9 strains. *J Clin Microbiol.* 2005; 43(3): 1377-84.
- Than VT, Park JH, Chung IS, Kim JB, Kim W. Whole-genome sequence analysis of a Korean G11P[25] rotavirus strain identifies several porcine-human reassortant events. *Arch Virol.* 2013; 158(11): 2385-93.
- Theamboonlers A, Bhattarakosol P, Chongsrisawat V, Sungkapalee T, Wutthirattanakowit N, Poovorawan Y. Molecular characterization of group A human rotaviruses in Bangkok and Buriram, Thailand during 2004-2006 reveals the predominance of G1P[8], G9P[8] and a rare G3P[19] strain. *Virus Genes.* 2008; 36(2): 289-98.
- Theamboonlers A, Maiklang O, Thongmee T, Chieochansin T, Vuthitanachot V, Poovorawan Y. Complete genotype constellation of human rotavirus group A circulating in Thailand, 2008-2011. *Infect Genet Evol.* 2014; 21: 295-302.
- Theil KW, Saif LJ, Moorhead PD, Whitmoyer RE. Porcine rotavirus-like virus (group B rotavirus): characterization and pathogenicity for gnotobiotic pigs. *J Clin Microbiol.* 1985; 21(3): 340-5.
- Thongprachum A, Chan-it W, Khamrin P, Okitsu S, Nishimura S, Kikuta H et al. Reemergence of new variant G3 rotavirus in Japanese pediatric patients, 2009-2011. *Infect Genet Evol.* 2013; 13: 168-74.

- Trojnar E, Otto P, Johne R. The first complete genome sequence of a chicken group A rotavirus indicates independent evolution of mammalian and avian strains. *Virology*. 2009; 386(2): 325-33.
- Trojnar E, Otto P, Roth B, Reetz J, Johne R. The genome segments of a group D rotavirus possess group A-like conserved termini but encode group-specific proteins. *J Virol*. 2010; 84(19): 10254-65.
- Trojnar E, Sachsenröder J, Twardziok S, Reetz J, Otto PH, Johne R. Identification of an avian group A rotavirus containing a novel VP4 gene with a close relationship to those of mammalian rotaviruses. *J Gen Virol*. 2013; 94(1): 136-42.
- Tsugawa T, Hoshino Y. Whole genome sequence and phylogenetic analyses reveal human rotavirus G3P[3] strains Ro1845 and HCR3A are examples of direct virion transmission of canine/feline rotaviruses to humans. *Virology*. 2008; 380(2): 344-53.
- Uchida R, Pandey BD, Sherchand JB, Ahmed K, Yokoo M, Nakagomi T, et al. Molecular epidemiology of rotavirus diarrhea among children and adults in Nepal: detection of G12 strains with P[6] or P[8] and a G11P[25] strain. *J Clin Microbiol*. 2006; 44(10): 3499-505.
- Urasawa S, Hasegawa A, Urasawa T, Taniguchi K, Wakasugi F, Suzuki H, et al. Antigenic and genetic analyses of human rotaviruses in Chiang Mai, Thailand: evidence for a close relationship between human and animal rotaviruses. *J Infect Dis*. 1992; 166(2): 227-34.
- Varghese V, Das S, Singh NB, Kojima K, Bhattacharya SK, Krishnan T, et al. Molecular characterization of a human rotavirus reveals porcine characteristics in most of the genes including VP6 and NSP4. *Arch Virol*. 2004; 149(1): 155-72.

- Vesikari T, Matson DO, Dennehy P, Van Damme P, Santosham M, Rodriguez Z, et al. Safety and efficacy of a pentavalent human-bovine (WC3) reassortant rotavirus vaccine. *N Engl J Med*. 2006; 354(1): 23-33.
- Wakuda M, Ide T, Sasaki J, Komoto S, Ishii J, Sanekata T, et al. Porcine rotavirus closely related to novel group of human rotaviruses. *Emerg Infect Dis*. 2011; 17(8): 1491-3.
- Ward RL, Nakagomi O, Knowlton DR, McNeal MM, Nakagomi T, Clemens JD, et al. Evidence for natural reassortants of human rotaviruses belonging to different genogroups. *J Virol*. 1990; 64(7): 3219-25.
- Will LA, Paul PS, Proescholdt TA, Aktar SN, Flaming KP, Janke BH, et al. Evaluation of rotavirus infection and diarrhea in Iowa commercial pigs based on an epidemiologic study of a population represented by diagnostic laboratory cases. *J Vet Diagn Invest*. 1994; 6(4): 416-22.
- Winiarczyk S, Paul PS, Mummidi S, Panek R, Gradzki Z. Survey of porcine rotavirus G and P genotype in Poland and the United States using RT-PCR. *J Vet Med B Infect Dis Vet Public Health*. 2002; 49(8): 373-8.
- Wu FT, Bányai K, Huang JC, Wu HS, Chang FY, Yang JY, et al. Diverse origin of P[19] rotaviruses in children with acute diarrhea in Taiwan: Detection of novel lineages of the G3, G5, and G9 VP7 genes. *J Med Virol*. 2011; 83(7): 1279-87.
- Yan H, Nguyen TA, Phan TG, Okitsu S, Li Y, Ushijima H. Development of RT-multiplex PCR assay for detection of adenovirus and group A and C rotaviruses in diarrheal fecal specimens from children in China. *Kansenshogaku Zasshi*. 2004; 78(8): 699-709.
- Zaberezhny AD, Lyoo YS, Paul PS. Prevalence of P types among porcine rotaviruses using subgenomic VP4 gene probes. *Vet Microbiol*. 1994; 39(1-2): 97-110.

Zade JK, Chhabra P, Chitambar SD. Characterization of VP7 and VP4 genes of rotavirus strains: 1990-1994 and 2000-2002. *Epidemiol Infect.* 2009; 137(7): 936-42.

Zhou Y, Supawadee J, Khamwan C, Tonusin S, Peerakome S, Kim B, et al. Characterization of human rotavirus serotype G9 isolated in Japan and Thailand from 1995 to 1997. *J Med Virol.* 2001; 65(3): 619-28.



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved