We gratefully acknowledge the following Authors from the Originating laboratories responsible for obtaining the specimens, as well as the Submitting laboratories where the genome data were generated and shared via GISAID, on which this research is based.

All Submitters of data may be contacted directly via www.gisaid.org

Authors are sorted alphabetically.

Accession ID	Originating Laboratory	Submitting Laboratory	
EPI_ISL_402120	National Institute for Viral Disease Control and Prevention, China CDC	National Institute for Viral Disease Control and Prevention, China CDC	W
EPI_ISL_403928	Institute of Pathogen Biology, Chinese Academy of Medical Sciences & Peking Union Medical College	Institute of Pathogen Biology, Chinese Academy of Medical Sciences & Peking Union Medical College	
EPI_ISL_403934, EPI_ISL_403936, EPI_ISL_403937	Guangdong Provincial Center for Diseases Control and Prevention; Guangdong Provincial Public Health	Department of Microbiology, Guangdong Provincial Center for Diseases Control and Prevention	Mir
EPI_ISL_403962, EPI_ISL_403963	Bamrasnaradura Hospital	Department of Medical Sciences, Ministry of Public Health, Thailand 2. Thai Red Cross Emerging Infectious Diseases - Health Science Centre 3. Department of Disease Control, Ministry of Public Health, Thailand	
EPI_ISL_404227	Zhejiang Provincial Center for Disease Control and Prevention	Department of Microbiology, Zhejiang Provincial Center for Disease Control and Prevention	Yisl
EPI_ISL_404228	Zhejiang Provincial Center for Disease Control and Prevention	Department of Microbiology, Zhejiang Provincial Center for Disease Control and Prevention	Yisl
EPI_ISL_406531	Guangdong Provincial Center for Diseases Contorl and Prevention; Guangdong Provinical Public Health	Guangdong Provincial Center for Disease Control and Prevention	Mir
EPI_ISL_406533	Guangdong Provincial Center for Diseases Contorl and Prevention; Guangdong Provinical Public Health	Guangdong Provincial Center for Diseases Control and Prevention	Mir
EPI_ISL_406534, EPI_ISL_406535, EPI_ISL_406536	Guangdong Provincial Center for Diseases Control and Prevention; Guangdong Provincial Public Health	Guangdong Provincial Center for Diseases Control and Prevention	Mir
EPI_ISL_406538	Guangdong Provincial Center for Diseases Control and Prevention; Guangdong Provincial Institute of Public Health	Guangdong Provincial Center for Diseases Control and Prevention	Mir
EPI_ISL_406594, EPI_ISL_406595	Shenzhen Key Laboratory of Pathogen and Immunity, National Clinical Research Center for Infectious Disease, Shenzhen Third People's Hospital	Shenzhen Key Laboratory of Pathogen and Immunity, National Clinical Research Center for Infectious Disease, Shenzhen Third People's Hospital	
EPI_ISL_406716, EPI_ISL_406717	State Key Laboratory of Virology, Wuhan University	State Key Laboratory of Virology, Wuhan University	
EPI_ISL_406800	General Hospital of Central Theater Command of People's Liberation Army of China	BGI & Institute of Microbiology, Chinese Academy of Sciences & Shandong First Medical University & Shandong Academy of Medical Sciences & General Hospital of Central Theater Command of People's Liberation Army of China	
EPI_ISL_406970	Hangzhou Center for Disease and Control Microbiology Lab	Hangzhou Center for Disease and Control Microbiology Lab	
EPI_ISL_406973	Singapore General Hospital	National Public Health Laboratory	
EPI_ISL_407079	Lapland Central Hospital	Department of Virology, University of Helsinki and Helsinki University Hospital, Helsinki, Finland	
EPI_ISL_407313	Hangzhou Center for Disease Control and Prevention	Hangzhou Center for Disease Control and Prevention	
EPI_ISL_407987	Singapore General Hospital	Programme in Emerging Infectious Diseases, Duke-NUS Medical School	C
EPI_ISL_408008	California Department of Health	Pathogen Discovery, Respiratory Viruses Branch, Division of Viral Diseases, Centers for Disease Control and Prevention	Kri
EPI_ISL_408009	California Department of Health	Pathogen Discovery, Respiratory Viruses Branch, Division of Viral Diseases, Centers for Dieases Control and Prevention	Kri
EPI_ISL_408010	California Department of Health	Pathogen Discovery, Respiratory Viruses Branch, Division of Viral Diseases, Centers for Dieases Control and Prevention	Yir
EPI_ISL_408431	Sorbonne Université, Inserm et Assistance Publique-Hôpitaux de Paris (Pitié Salpétrière)	National Reference Center for Viruses of Respiratory Infections, Institut Pasteur, Paris	Mé
EPI_ISL_408479	Zhongxian Center for Disease Control and Prevention	Chongqing Municipal Center for Disease Control and Prevention	
EPI_ISL_408486	National Institute for Viral Disease Control and Prevention, China CDC	National Institute for Viral Disease Control & Prevention, CCDC	V
EPI_ISL_408488	National Institute for Viral Disease Control and Prevention, China CDC	National Institute for Viral Disease Control & Prevention, CCDC	We
EPI_ISL_408514, EPI_ISL_408515	Institute of Viral Disease Control and Prevention, China CDC	Institute of Viral Disease Control and Prevention, China CDC	Wi
EPI_ISL_408669	Dept. of Virology III, National Institute of Infectious Diseases	Pathogen Genomics Center, National Institute of Infectious Diseases	

## Authors

Wenjie TanXiang ZhaoWenling WangXuejun MaYongzhong JiangRoujian LuJi WangWeimin ZhouPeihua NiuPeipei LiuFaxian ZhanWeifeng ShiBaoying HuangJun LiuLi ZhaoYao MengXiaozhou HeFei YeNa ZhuYang LiJing ChenWenbo XuGeorge F. GaoGuizhen Wu

Lili Ren, Jianwei Wang, Qi Jin, Zichun Xiang, Zhigiang Wu, Chao Wu, Yiwei Liu

fin Kang, Jie Wu, Jing Lu, Tao Liu, Baisheng Li, Shujiang Mei, Feng Ruan, Lifeng Lin, Changwen Ke, Haojie Zhong, Yingtao Zhang, Lirong Zou, Xuguang Chen, Qi Zhu, Jianpeng Xiao, Jianxiang Geng, Zhe Liu, Jianxiong Hu, Weilin Zeng, Xing Li, Yuhuang Liao, Xiujuan Tang, Songjian Xiao, Ying Wang, Yingchao Song, Xue Zhuang, Lijun Liang, Guanhao He, Huihong Deng, Tie Song, Jianfeng He, Wenjun Ma

Pilailuk,Okada; Siripaporn,Phuygun; Thanutsapa,Thanadachakul; Supaporn,Wacharapluesadee; Sittiporn,Parnmen; Warawan,Wongboot; Sunthareeya,Waicharoen; Rome,Buathonq; Malinee,Chittaganpitch; Nanthawan,Mekha

Yin Chen, Yanjun Zhang, Haiyan Mao, Junhang Pan, Xiuyu Lou, Yiyu Lu, Juying Yan, Hanping Zhu, Jian Gao, Yan Feng, Yi Sun, Hao Yan, Zhen Li, 'isheng Sun, Liming Gong, Qiong Ge, Wen Shi, Xinying Wang, Wenwu Yao, Zhangny Yang, Fang Xu, Chen Chen, Enfu Chen, Zhen Wang, Zhiping Chen, Jianmin Jiana. Chonogao Hu

Yanjun Zhang, Yin Chen, Haiyan Mao, Junhang Pan, Xiuyu Lou, Yiyu Lu, Juying Yan, Hanping Zhu, Jian Gao, Yan Feng, Yi Sun, Hao Yan, Zhen Li, Yisheng Sun, Liming Gong, Qiong Ge, Wen Shi, Xinying Wang, Wenwu Yao, Zhangnv Yang, Fang Xu, Chen Chen, Enfu Chen, Zhen Wang, Zhiping Chen, Jianmin Jiang, Chongqao Hu

Min Kang, Jie Wu, Jing Lu, Tao Liu, Baisheng Li, Shujiang Mei, Feng Ruan, Lifeng Lin, Changwen Ke, Haojie Zhong, Yingtao Zhang, Lirong Zou, Xuguang Chen, Qi Zhu, Jianpeng Xiao, Jianxiang Geng, Zhe Liu, Jianxiong Hu, Weilin Zeng, Xing Li, Yungang Liao, Xiujuan Tang, Songjian Xiao, Ying Wang, Yingchao Song, Xue Zhuang, Lijun Liang, Guanhao He, Huihong Deng, Tie Song, Jianfeng He, Wenjun Ma

Min Kang, Jie Wu, Jing Lu, Tao Liu, Baisheng Li, Shujiang Mei, Feng Ruan, Lifeng Lin, Changwen Ke, Haojie Zhong, Yingtao Zhang, Lirong Zou, Xuguang Chen, Qi Zhu, Jianpeng Xiao, Jianxiang Geng, Zhe Liu, Jianxiong Hu, Wellin Zeng, Xing Li, Yuhuang Liao, Xiujuan Tang, Songjian Xiao, Ying Wang, Yingchao Song, Xue Zhuang, Ljiun Liang, Guanhao He, Huihong Deng, Tie Song, Jianfeng He, Wenjun Ma

Min Kang, Jie Wu, Jing Lu, Tao Liu, Baisheng Li, Shujiang Mei, Feng Ruan, Lifeng Lin, Changwen Ke, Haojie Zhong, Yingtao Zhang, Lirong Zou, Xuguang Chen, Qi Zhu, Jianpeng Xiao, Jianxiang Geng, Zhe Liu, Jianxiong Hu, Wellin Zeng, Xing Li, Yungan Liao, Xijujuan Tang, Songjian Xiao, Ying Wang, Yingchao Song, Xue Zhuang, Lijun Liang, Guanhao He, Huihong Deng, Tie Song, Jianfeng He, Wenjun Ma

Min Kang, Jie Wu, Jing Lu, Tao Liu, Baisheng Li, Shujiang Mei, Feng Ruan, Lifeng Lin, Changwen Ke, Haojie Zhong, Yingtao Zhang, Lirong Zou, Xuguang Chen, Qi Zhu, Jianpeng Xiao, Jianxiang Geng, Zhe Liu, Jianxiong Hu, Wellin Zeng, Xing Li, Yuhuang Liao, Xiujuan Tang, Songjian Xiao, Ying Wang, Yingchao Song, Xue Zhuang, Lijun Liang, Guanhao He, Huihong Deng, Tie Song, Jianfeng He, Wenjun Ma

Yang Yang, Chenguang Shen, Li Xing, Zhixiang Xu, Haixia Zheng, Yingxia Liu

Chen,L., Liu,W., Zhang,Q., Xu,K., Ye,G., Wu,W., Sun,Z., Liu,F., Wu,K., Mei,Y., Zhang,W., Chen,Y., Li,Y., Shi,M., Lan,K. and Liu,Y.
Weijun Chen, Yuhai Bi, Weifeng Shi and Zhenhong Hu

Yu Hua, Wang Haoqiu, Li Jun, Yu Xinfeng Mak, TM; Octavia S; Chavatte JM; Zhou, ZY; Cui, L; Lin, RTP Teemu Smura, Suvi Kuivanen, Hannimari Kallio-Kokko, Olli Vapalahti

Jun Li, Haoqiu Wang, Hua Yu, Lingfeng Mao, Xinfen Yu, Zhou Sun, Qingxin Kong, Xin Qian, Shuchang Chen, Xuchu Wang

Danielle E Anderson, Martin Linster, Yan Zhuang, Jayanthi Jayakumar, Kian Sing Chan, Lynette LE Oon, Jenny GH Low, Yvonne CF Su, Linfa Wang, Gavin JD Smith

Krista Queen, Jing Zhang, Yan Li, Ying Tao, Anna Uehara, Clinton Paden, Xiaoyan Lu, Brian Lynch, Senthil Kumar K. Sakthivel, Brett L. Whitaker, Shifaq Kamili, Lijuan Wang, Janna' R. Murray, Susan I. Gerber, Stephen Lindstrom, Suxiang Tong

Krista Queen, Jing Zhang, Yan Li, Ying Tao, Anna Uehara, Clinton Paden, Xiaoyan Lu, Brian Lynch, Senthil Kumar K. Sakthivel, Brett L. Whitaker, Shifaq Kamili, Lijuan Wang, Janna' R. Murray, Susan I. Gerber, Stephen Lindstrom, Suxiang Tong

Ying Tao, Krista Queen, Jing Zhang, Yan Li, Anna Uehara, Clinton Paden, Xiaoyan Lu, Brian Lynch, Senthil Kumar K. Sakthivel, Brett L. Whitaker, Shifaq Kamili, Lijuan Wang, Janna' R. Murray, Susan I. Gerber, Stephen Lindstrom, Suxiang Tong

Mélanie Albert, Marion Barbet, Sylvie Behillil, Méline Bizard, Angela Brisebarre, Flora Donati, Vincent Enouf, Maud Vanpeene, Sylvie van der Werf, Sonia Burrel, Anne-Geneviève Marcelin, Vincent Calvez, David Boutolleau, Elise Klément, Valérie Pourcher, Eric Caumes.

Ye Sheng, Tang Yun, Ling Hua, Zhang Hong, Yu zhen, Chen Shuang, Tan Zhang Ping, Su Kun, Li Qin, Tang Wenge, Rong Rong

Wenjie Tan, Yong Shi, Wenling Wang, Peihua Niu, Roujian Lu, Jianxiong Li, Xiang Zhao, Baoying Huang, Li Zhao, Fei Ye, Wenbo Xu, George F. Gao, Guizhen Wu

Wenjie Tan, Shenjiao Wang, Wenling Wang, Peihua Niu, Roujian Lu, Kangchen Zhao, Xiang Zhao, Baoying Huang, Li Zhao, Fei Ye, Wenbo Xu, George F. Gao, Guizhen Wu

William J. Liu, Peipei Liu, Xiang Zhao, Peihua Niu, Yingze Zhao, Wenwen Lei, Ziqian Xu, Shumei Zou, Wei Zhen, Beiwei Ye, Mengjie Yang, Weifeng Shi, Roujian Lu, Wenjie Tan, Zhixiao Chen, Yuchao Wu, Juan Song, Weimin Zhou, Dayan Wang, Jun Han, Wenbo Xu, George F. Gao, Guizhen Wu

Tsuyoshi Sekizuka, Shutoku Matsuyama, Naganori Nao, Kazuya Shirato, Makoto Takeda, Makoto Kuroda

EPI_ISL_413522  EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857  EPI_ISL_415711  EPI_ISL_416044, EPI_ISL_416046  EPI_ISL_416320, EPI_ISL_416321, EPI_ISL_416324, EPI_ISL_416365, EPI_ISL_416390, EPI_ISL_416390  EPI_ISL_416474  EPI_ISL_416474  EPI_ISL_416466  EPI_ISL_417064  EPI_ISL_417064  EPI_ISL_417064  EPI_ISL_418069  EPI_ISL_418267  EPI_ISL_418269	Ho Chi Minh city	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Malaysia Genome Institute  Malaysia Genome Institute  Hong Kong Department of Health Department of Health Technology and Informatics, Faculty of Health and Social Science, The Hong Kong Polytechnic University  Microbiology and Immunology department, Pasteur institute in Ho Chi Minh city  Microbiology and Immunology department, Pasteur institute in Ho Chi Minh city  Inspection Center of Hangzhou Center for Disease Control and Prevention	Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li  Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen  Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Arifin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahrul Hisham Zaial Ariffin  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Arifin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahrul Hisham Zainal Ariffin  Alan K.L. Tsang, Peter C.W. Yip, Edman T.K. Lam, Rickjason C.W. Chan, Dominic N.C. Tsang  Kenneth Siu-Sing LEUNG, Timothy Ting-Leung NG, Alan Ka-Lun WU, Miranda Chong-Yee YAU, Hiu-Yin LAO, Ming-Pan CHOl, Kingsley King-Gee TAM, Lam-Kwong LEE, Barry Kin-Chung WONG, Alex Yat-Man HO, Kam-Tong Yip, Kwok-Cheung LUNG, Rayynond Wai-To LIU, Eugene Yuk-Keung TSO, Wai-Shing LEUNG, Man-Chun CHAN, Yuk-Yung NG, Kit-Man SIN, Kitty Sau-Chun FUNG, Sandy Ka-Yee CHAU, Wing-Kin TO, Tak-Lun Que, David Ho-Keung SHUM, Shea Ping YiP, Wing Cheong YAM, Gliman Kit-Hang SIU  Nguyen,H.T., Cao,T.M., Pham,H.T.T., Vu,N.P.H., Dao,M.H., Huynh,L.T.K., Nguyen,L.T., Nguyen,T.T.N., Nguyen,S.N., Pham,D.T., Nguyen,T.V. and Phan,L.T., Tran,K.C., Pham,Q.D., Tran,T., Hoang,C.Q., Nguyen,T.T., Le,H.Q., Phung,T.M., Vo,T.N.A., Nguyen,S.N., Pham,D.T., Phan,L.T. and Nguyen,T.T., Le,H.Q., Phung,T.M., Vo,T.N.A., Nguyen,S.N., Pham,D.T., Phan,L.T. and Nguyen,T.T., Le,H.Q., Phung,T.M., Vo,T.N.A., Nguyen,S.N
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857  EPI_ISL_415711  EPI_ISL_416044, EPI_ISL_416046  EPI_ISL_416320, EPI_ISL_416321, EPI_ISL_416324, EPI_ISL_416365, EPI_ISL_416389, EPI_ISL_416390  EPI_ISL_416474  EPI_ISL_416474  EPI_ISL_416866  EPI_ISL_4171764  EPI_ISL_417178  EPI_ISL_418267	University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Shanghai Public Health Clinical Center, Shanghai Medical College, Fudan University  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Public Health Laboratory  National Public Health Laboratory  Prince of Wales Hospital  Department of Pathology, Princess Margaret Hospital  Microbiology and Immunology department, Pasteur institute in Ho Chi Minh city  Microbiology and Immunology department, Pasteur institute in	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Malaysia Genome Institute  Malaysia Genome Institute  Hong Kong Department of Health Department of Health Technology and Informatics, Faculty of Health and Social Science, The Hong Kong Polytechnic University  Microbiology and Immunology department, Pasteur institute in Ho Chi Minh city  Microbiology and Immunology department, Pasteur institute in	Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen  Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azta Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Anfin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahal Ariffin  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azta Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Anfin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahal Ariffin  Alan K.L. Tsang, Peter C.W. Yip, Edman T.K. Lam, Rickjason C.W. Chan, Dominic N.C. Tsang  Kenneth Siu-Sing LEUNG, Timothy Ting-Leung NG, Alan Ka-Lun WU, Miranda Chong-Yee YAU, Hiu-Yin LAO, Ming-Pan CHOI, Kingsley King-Gee TAM, Lam-Kwong LEE, Barry Kin-Chung WOnß, Alex Yat-Man HO, Kam-Tong Yip, Kwok-Cheung LUNG, Raymond Wai-To LIU, Eugene Yuk-Keung TSO, Wai-Shing LEUNG, Man-Chun CHAN, Yuk-Yung NG, Kit-Man SilN, Kitty Sau-Chun FUNG, Sandy Ka-Yee CHAU, Wing-Kin TO, Tak-Lun Que, David Ho-Keung SHUM, Shea Ping YIP, Wing Cheong YAM, Gilman Kit-Hang SilU  Nguyen,T.Y., Tran,K.C., Pham,Q.D., Tran,T., Hoang,C.Q., Nguyen,T.T., Le,H.Q., Phung,T.M., Vo,T.N.A., Nguyen,S.N., Pham,D.T., Nguyen,T.Y. and Phan,L.T.
EPI_ISL_413851, EPI_ISL_413852,	University School of Medicine, Hangzhou, China. 310003 State Key, Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Shanghai Public Health Clinical Center, Shanghai Medical College, Fudan University  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Public Health Laboratory  Prince of Wales Hospital Department of Pathology, Princess Margaret Hospital Microbiology and Immunology department, Pasteur institute in	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Malaysia Genome Institute  Malaysia Genome Institute  Hong Kong Department of Health Department of Health Technology and Informatics, Faculty of Health and Social Science, The Hong Kong Polytechnic University  Microbiology and Immunology department, Pasteur institute in	Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen  Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azta Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Anfin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahal Ariffin  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azta Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Anfin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahal Ariffin  Alan K.L. Tsang, Peter C.W. Yip, Edman T.K. Lam, Rickjason C.W. Chan, Dominic N.C. Tsang  Kenneth Siu-Sing LEUNG, Timothy Ting-Leung NG, Alan Ka-Lun WU, Miranda Chong-Yee YAU, Hiu-Yin LAO, Ming-Pan CHOI, Kingsley King-Gee TAM, Lam-Kwong LEE, Barry Kin-Chung WOng, Alex Yat-Man HO, Kam-Tong Yip, Kwok-Cheung LUNG, Raymond Wai-To LIU, Eugene Yuk-Keung TSO, Wai-Shing LEUNG, Man-Chun CHAN, Yuk-Yung NG, Kit-Man SiN, Kitty Sau-Chun FUNG, Sandy Ka-Yee CHAU, Wing-Kin TO, Tak-Lun Que, David Ho-Keung SHUM, Shea Ping YIP, Wing Cheong YAM, Gilman Kit-Hang SIU  Nguyen,H.T., Cao,T.M., Pham,H.T.T., Vu,N.P.H., Dao,M.H., Huynh,L.T.K., Nguyen,N.T., Nguyen,S.N., Pham,D.T., Nguyen,T.V. and
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857  EPI_ISL_415711  EPI_ISL_416044, EPI_ISL_416046  EPI_ISL_416320, EPI_ISL_416321, EPI_ISL_416324, EPI_ISL_416365, EPI_ISL_416389, EPI_ISL_416390  EPI_ISL_416474  EPI_ISL_416829  EPI_ISL_416866  EPI_ISL_417064	University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Shanghai Public Health Clinical Center, Shanghai Medical College, Fudan University  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Public Health Laboratory  National Public Health Laboratory  Prince of Wales Hospital	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Malaysia Genome Institute  Hong Kong Department of Health Department of Health Technology and Informatics, Faculty of Health and Social Science, The Hong Kong Polytechnic	Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen  Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Arifin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahlar Alarifin  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Arifin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahru Hisham Zainal Ariffin  Alan K.L. Tsang, Peter C.W. Yip, Edman T.K. Lam, Rickjason C.W. Chan, Dominic N.C. Tsang  Kenneth Siu-Sing LEUNG, Timothy Ting-Leung NG, Alan Ka-Lun WU, Miranda Chong-Yee YAU, Hiu-Yin LAO, Ming-Pan CHOI, Kingsley King-Gee TAM, Lam-Kwong LEE, Barry Kin-Chung WONG, Alex Yat-Man HO, Kam-Tong Yip, Kwok-Cheung LUNG, Raymond Wai-To LIU, Eugene Yuk-Keung TSO, Wai-Shing LEUNG, Man-Chun CHAN, Yuk-Yung NG, Kit-Man SIN, Kitty Sau-Chun FUNG, Sandy Ka-Yee CHAU, Wing-Kin TO, Tak-Lun Que, David
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857  EPI_ISL_415711  EPI_ISL_416044, EPI_ISL_416046  EPI_ISL_416320, EPI_ISL_416321, EPI_ISL_416324, EPI_ISL_416365, EPI_ISL_416389, EPI_ISL_416390  EPI_ISL_416474  EPI_ISL_416829  EPI_ISL_416866	University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Shanghai Public Health Clinical Center, Shanghai Medical College, Fudan University  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Public Health Laboratory	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Malaysia Genome Institute	Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen  Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Arifin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahrul Hisham Zainal Ariffin  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Arifin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahrul Hisham Zainal Ariffin
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857 EPI_ISL_415711 EPI_ISL_416044, EPI_ISL_416046 EPI_ISL_416320, EPI_ISL_416321, EPI_ISL_416324, EPI_ISL_416365, EPI_ISL_416389, EPI_ISL_416390 EPI_ISL_416474 EPI_ISL_416829	University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Shanghai Public Health Clinical Center, Shanghai Medical College, Fudan University  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Public Health Laboratory	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Malaysia Genome Institute	Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen  Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Arifin, Rehan Shuhada Abu Bakar, Yu Kie Chem, Selvanesan Sengol, Hani Mat Hussin, Shahrul Hisham Zainal Ariffin  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Arifin, Rehan Shuhada Abu Bakar, Yu
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857 EPI_ISL_415711 EPI_ISL_416044, EPI_ISL_416046 EPI_ISL_416320, EPI_ISL_416321, EPI_ISL_416324, EPI_ISL_416365, EPI_ISL_416389, EPI_ISL_416390 EPI_ISL_416474	University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Shanghai Public Health Clinical Center, Shanghai Medical College, Fudan University  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003	Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen  Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li  Mohd Noor Mat Isa, Irni Suhayu Sapian, Yusuf Muhammad Noor, Nurhezreen Md Iqbal, Mohd Faizal Abu Bakar, Enizza Kasim, Shamsidar Sopie, Siti Noraini Othman, Azrin Ahmad, Nor Azfa Johari, Norazimah Tajudin, Noorliza Mohamad Noordin, W Afiza W Mohd Anfin, Rehan Shuhada Abu Bakar, Yu
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857 EPI_ISL_415711 EPI_ISL_416044, EPI_ISL_416046 EPI_ISL_416320, EPI_ISL_416321, EPI_ISL_416324, EPI_ISL_416365, EPI_ISL_416389, EPI_ISL_416390	University School of Medicine, Hangzhou, China. 310003 State Key, Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Shanghai Public Health Clinical Center, Shanghai Medical College, Fudan University  State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, First Affiliated Hospital, Zhejiang	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang	Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857 EPI_ISL_415711 EPI_ISL_416044, EPI_ISL_416046 EPI_ISL_416320, EPI_ISL_416321, EPI_ISL_416324, EPI_ISL_416365, EPI_ISL_416389, EPI_ISL_416390	University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 Shanghai Public Health Clinical Center, Shanghai Medical College, Fudan University	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003 National Research Center for Translational Medicine (Shanghai), Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine & Shanghai Public Health Clinical Center	Shengyue Wang, Xiaonan Zhang, Gang Lu, Yun Tan, Yun Ling, Hongzhou Lu, Saijuan Chen
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857 EPI_ISL_415711 EPI_ISL_416044, EPI_ISL_416046	University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003 State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China 310003	
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857 EPI_ISL_415711	University School of Medicine, Hangzhou, China. 310003	Infectious Diseases, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China. 310003	
EPI_ISL_413851, EPI_ISL_413852, EPI_ISL_413857	State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for	State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, National Clinical Research Center for	Hangping Yao, Nanping Wu, Chao Jiang, Xiangyun Lu, Linfang Cheng, Fumin Liu, Zhigang Wu, Haibo Wu, Changzhong Jin, Min Zheng, Lanjuan Li
	Guangdong Provincial Institution of Public Health, Guangdong Provinical Center for Disease Control and Prevention		Jing Lu, Louis du Plessis, Liu Zhe, Jiufeng Sun, Sarah François, Huifang Lin, Moritz Kraemer, Jingju Peng, Qianlin Xiong, Runyu Yuan, Lilian Zeng, Pingping Zhou, Chuming Liang, Tao Liu, Wei Li, Juan Su, Huanying Zheng, Kang Min, Song Tie, Bo Peng, Shisong Fang, Wenzhe Su, Kuibiao Li, Ruilin Sun, Ru bai, Xi Tang, Minfeng Liang, Nuno Faria, Josh Quick, Andrew Rambaut, Verity Hill, Wenjun Ma, Nick Loman, Oliver Pybus, Changwen Ke
	Virology	National Influenza Center, Indian Council of Medical Research - National Institute of Virology	Potdar V, Yadav PD, Choudhary ML, Shete-Aich A
EPI_ISL_413015	Public Health Ontario Laboratory	National Microbiology Laboratory	Shari Tyson, Anna Majer, Erika Landry, Morag Graham, Grace Seo, Philip Mabon, Natalie Knox, Adrian Zetner, Samira Mubareka, Rob Kozak, Jocelyne Lew, Darryl Falzarano, Gerdts Volker, Jonathan Gubbay, Stephanie Booth, Guillaume Poliquin, Tom Graefenhan, Matthew Gilmour, Nathalie Bastien, Yan Li, Timothy Booth
EPI_ISL_412967	Technology Centre, Guangzhou Customs	Technology Centre, Guangzhou Customs	Shi,Y., Zheng,K., Sun,J., Huang,J., Zhu,A., Zhuang,Z., Dai,J., Chen,Z., Sun,F., Zhang,Z., Li,X. and Wang,Y.
EPI_ISL_412459	Jingzhou Center for Disease Control and Prevention	Hubei Provincial Center for Disease Control and Prevention	Bin Fang, Xiang Li, Xiao Yu, Linlin Liu, Bo Yang, Faxian Zhan, Guojun Ye, Xixiang Huo, Junqiang Xu, Bo Yu, Kun Cai, Jing Li, Maoyi Chen, Jie Hu, Chunlin Mao, Yongzhong Jiang.
EPI_ISL_411957	Key Laboratory of Human Diseases, Comparative Medicine, Institute of Laboratory Animal Science	Key Laboratory of Human Diseases, Comparative Medicine, Institute of Laboratory Animal Science	Linlin,B., Lili,R., Shuran,G., Jiangning,L., Feifel,Q., Qi,L., Fengdi,L., Jing,X., Wei,D., Pin,Y., Yanfeng,X., Yajin,Q., Hong,G., Qiang,W., Mingya,L., Guanpeng,W., Shunyi,W., Zhiqi,S., Li,G., Lan,C., Conghui,W., Ying,W., Xinming,W., Yan,X., Qi,J. and Chuan,Q.
EPI_ISL_411952, EPI_ISL_411953	NHC Key laboratory of Enteric Pathogenic Microbiology, Institute of Pathogenic Microbiology	Jiangsu Provincial Center for Disease Control & Prevention	Kangchen Zhao, Xiaojuan Zhu, Lunbiao Cui, Tao Wu, Yiyue Ge, Bin Wu, Yin Chen, Fengcai Zhu, Baoli Zhu, Ming Wu
EPI_ISL_411950	NHC Key laboratory of Enteric Pathogenic Microbiology, Institute of Pathogenic Microbiology	Jiangsu Provincial Center for Disease Control & Prevention	Lunbiao Cui,Kangchen Zhao,Xiaojuan Zhu,Yiyue Ge,Tao Wu,Bin Wu,Yin Chen,Fengcai Zhu,Baoli Zhu,Ming Wu
EPI_ISL_411927	Taiwan Centers for Disease Control	Taiwan Centers for Disease Control	Ji-Rong Yang, Yu-Chi-Lin, Jung-Jung Mu, Ming-Tsan-Liu
EPI_ISL_411915	Laboratory Medicine	Chan-Zuckerberg Biohub)  Department of Laboratory Medicine, Lin-Kou Chang Gung Memorial Hospital, Taoyuan, Taiwan.	Kuo-Chien Tsao, Yu-Nong Gong, Shu-Li Yang, Yi-Chun Li, Chung-Guei Huang, Yhu-Chering Huang, Shin-Ru Shih
EPI_ISL_411902	Virology Unit, Institut Pasteur du Cambodge.	Virology Unit, Institut Pasteur du Cambodge (Sequencing done by: Jessica E Manning/Jennifer A Bohl at Malaria and Vector Research Research Laboratory, National Institute of Allergy and Infectious Diseases and Vida Ahyong from	Erik A Karlsson, Jennifer A Bohl, Vida Ahyong, Veasna Duong, Philippe Dussart, Jessica E Manning.
EPI_ISL_411066	Fujian Center for Disease Control and Prevention	Fujian Center for Disease Control and Prevention	Chen Wei, Zhang Yanhua, He Wenxiang, Weng Yuwei
EPI_ISL_410531, EPI_ISL_410532	Kathmandu, Nepal  Dept. of Pathology, National Institute of Infectious Diseases	Pathogen Genomics Center, National Institute of Infectious Diseases	Tsuyoshi Sekizuka, Harutaka Katano, Shutoku Matsuyama, Naganori Nao, Kazuya Shirato, Motoi Suzuki, Hideki Hasegawa, Takaji Wakita, Makoto Takeda, Tadaki Suzuki, Makoto Kuroda
EPI_ISL_410301	National Influenza Centre, National Public Health Laboratory,	The University of Hong Kong	Ranjit Sah , Runa Jha, Daniel Chu, Haogao Gu, Malik Peiris, Anup Bastola, Alfonso J. Rodriguez-Morales, Bibek Kumar Lal, Basu Dev Pandey, Leo Poon
EPI_ISL_410044	California Department of Public Health	Pathogen Discovery, Respiratory Viruses Branch, Division of Viral Diseases, Centers for Dieases Control and Prevention	Jing Zhang, Krista Queen, Yan Li, Ying Tao, Anna Uehara, Clinton R. Paden, Xiaoyan Lu, Brian Lynch, Senthil Kumar K. Sakthivel, Brett L. Whitaker, Shifaq Kamili, Lijuan Wang, Janna' R. Murray, Susan I. Gerber, Stephen Lindstrom, Suxiang Tong
EPI_ISL_409067	Massachusetts Department of Public Health	Pathogen Discovery, Respiratory Viruses Branch, Division of Viral Diseases, Centers for Dieases Control and Prevention	Clinton R. Paden, Jing Zhang, Krista Queen, Yan Li, Ying Tao, Anna Uehara, Xiaoyan Lu, Brian Lynch, Senthil Kumar K. Sakthivel, Brett L. Whitaker, Shifaq Kamili, Lijuan Wang, Janna' R. Murray, Susan I. Gerber, Stephen Lindstrom, Suxiang Tong
EPI_ISL_408670	Wisconsin Department of Health Services	Pathogen Discovery, Respiratory Viruses Branch, Division of Viral Diseases, Centers for Dieases Control and Prevention	Jing Zhang, Anna Uehara, Krista Queen, Yan Li, Ying Tao, Clinton R. Paden, Xiaoyan Lu, Brian Lynch, Senthil Kumar K. Sakthivel, Brett L. Whitaker, Shifaq Kamili, Lijuan Wang, Janna' R. Murray, Susan I. Gerber, Stephen Lindstrom, Suxiang Tong

and Prevention

EPI_SIL_418500 Heagrhou Center for Disease Control and Prevention Inspection Center of Hangyhou Center for Disease Control and Prevention Inspection Center of Hangyhou Center for Disease Control and Prevention Inspection Center of Hangyhou Center for Disease Centrol and Prevention Inspection Center of Hangyhou Center for Disease Centrol and Prevention Inspection Center of Hangyhou Center for Disease Centrol and Prevention Inspection Center of Provincion Center of Provincion Center of Provincion Center of Diseases Centrol and Prevention Inspection Center for Diseases Centrol and Prevention Diseases Centrol and Prevention Diseases Centrol and Prevention Inspection Center (Inspection Center for Diseases Centrol and Prevention Diseases Centrol and Pre				
EP. ISL 41881 EP. ISL 41881 CP. ISL 4181 CP.		Hangzhou Center for Disease Control and Prevention		Yu hua, Wang haoqiu, Li jun, Yu xinfeng, Pan jingcao
EP. SL, 41803, EP. SL, 418014, EP. SL, 41801	EPI_ISL_418510	Hangzhou Center for Disease Control and Prevention		Yu hua, Wang haoqiu, Li jun, Yu xinfeng, Pan jingcao
EPI_SL_421226. EPI_SL_421237. EPI_SL_421236. EPI_SL_421346. EPI_SL	EPI_ISL_418513, EPI_ISL_418514,	Hangzhou Center for Disease Control and Prevention		Yu hua, Wang haoqiu, Li jun, Yu xinfeng, Pan jingcao
EPI_ISL_421295 Beijing Institute of Microbiology and Epidemiology EPI_ISL_425177 Beijing Institute of Microbiology and Epidemiology EPI_ISL_425177 Public Health Oritatrio EPI_ISL_425177 Public Health Oritatrio EPI_ISL_425177 Public Health Agency of Canada: National Microbiology EPI_ISL_425177 Amrit S. Boses, Nikesh Tailor, Anders Leung, Joshus Octavoroy  EPI_ISL_425445, EPI_ISL_425455, EPI_ISL_425455, EPI_ISL_425456, EPI_ISL_425466, EPI_ISL_425466, EPI_ISL_425466, EPI_ISL_425466, EPI_ISL_425466, EPI_ISL_425467, EPI_ISL_425467, EPI_ISL_425468, EPI_ISL_425469, EPI_ISL_4	EPI_ISL_421226, EPI_ISL_421227, EPI_ISL_421228, EPI_ISL_421229, EPI_ISL_421230, EPI_ISL_421231,	Hangzhou Center for Diseases Control and Prevention	Hangzhou Center for Diseases Control and Prevention	Jun Li, Haoqiu Wang, Lingfeng Mao, Hua Yu, Xinfen Yu, Zhou Sun, Xin Qian, Shuchang Chen, Junfang Chen, Xuchu Wang
EPI_SL_42844, EPI_SL_428445, EPI_SL_428452, EPI_SL_428455, EPI_SL_428465, EPI_SL_428460, EPI_SL_428465, EPI_SL_428465, EPI_SL_428465, EPI_SL_428465, EPI_SL_428465, EPI_SL_428465, EPI_SL_428465, EPI_SL_428466, EPI_SL_428469, EPI_SL_428473, EPI_SL_428473, EPI_SL_428474, EPI_SL_428486, EPI_SL_428469, EPI_SL_428473, EPI_SL_428474, EPI_SL_428468, EPI_SL_428469, EPI_SL_428473, EPI_SL_428474, EPI_SL_428468, EPI_SL_428469, EPI_SL_428473, EPI_SL_428474, EPI_SL_428468, EPI_SL_428473, EPI_SL_428474, EPI_SL_428468, EPI_SL_428469, EPI_SL_428473, EPI_SL_428474, EPI_SL_428478, EPI_SL_428498, EPI_SL_428469, EPI_SL_428474, EPI_SL_428469, EPI_SL_428474, EPI_SL_428469, EPI_SL_428474, EPI_SL_428469, EPI_SL_428469, EPI_SL_428474, EPI_SL_428469, EPI_S		Jiangxi Province Center for Disease Control and Prevention	Jiangxi Province Center for Disease Control and Prevention	JianXiong Li,Ying Xiong,Tian Gong,Yong Shi,Jun Zhou,Fang Xiao,ShiWen Liu,XiaoQing Liu,Gang Xu,DaJin Xiao,Xin Ran,YanNi Zhang
EPI_SL_42844, EPI_SL_42846, EPI_SL_42845, EPI_SL_42845, EPI_SL_42846, EP	EPI_ISL_424359	Beijing Institute of Microbiology and Epidemiology	Beijing Institute of Microbiology and Epidemiology	Fan,H., Qin,E., Wu,Y., Guo,Y., Zhang,X., Yong,Y., Hou,J., Xu,Z., Mu,J., Teng,Y., Mi,Z., Yang,R., Song,Y., Li,B. and Cui,Y.
See above Guangdrop Provincial Center for Diseases Control and Prevention Classing on Provincial Center for Diseases Control, R.O.C. (Taiwan)  EP   SL, 42808, EP   SL, 42809  EP   SL, 42909, EP   SL, 42909  EP   SL, 42909, EP   SL, 42901  EP   SL, 43909,	EPI_ISL_425177	Public Health Ontario		Amrit S. Boese, Nikesh Tailor, Anders Leung, Joshua Quick, Shari Tyson, Morag Graham, Jonathan Audet, Natalie Knox, Darwyn Kobasa
Prevention.Guangdoog Provincial Institute of Public Health EPI, SL, 428488, EPI, SL, 428489 EPI, SL, 4289087 EPI, SL, 4389087 EPI, SL, 438908 EPI, SL, 439908 EPI, SL,	EPI_ISL_428444, EPI_ISL_428445, EPI_ISL_42	8452, EPI_ISL_428455, EPI_ISL_428456, EPI_ISL_428460, EPI_	_ISL_428461, EPI_ISL_428465, EPI_ISL_428467, EPI_ISL_428	3468, EPI_ISL_428469, EPI_ISL_428473, EPI_ISL_428474, EPI_ISL_428475, EPI_ISL_428478
EPI_SL_42908, EPI_SL_429097 EPI_SL_42900, EPI_SL_429105 EPI_SL_429100, EPI_SL_429105 EPI_SL_430408 EPI_SL_43043  Centers for Disease Control and Prevention of Lishui Department of Inspection/Centers for Disease Control and Prevention of Lishui Department of Inspection/Centers for Disease Control and Prevention of Lishui Institute for Medical Research, Infectious Disease Research Centre, National Institute of Medical Research, Infectious Disease Research Centre, National Institute for Medical Research, Infectious Disease Research Centre, National Institute for Disease Control and Prevention EPI_SL_430736, EPI_SL_430736, EPI_SL_430746 EPI_SL_430768, EPI_SL_430746 EPI_SL_430768, EPI_SL_430746 EPI_SL_430768, EPI_SL_430762 EPI_SL_430763, EPI_SL_430762 EPI_SL_430763 EPI_SL_430763 EPI_SL_430763 EPI_SL_430763 EPI_SL_447914, EPI_SL_430763 EPI_SL_447914, EPI_SL_430763 EPI_SL_447914, EPI_SL_447916 Department of Respiratorly and Critical Care Ministry of Public Health, Thailand EPI_SL_450409, EPI_SL_450410 Unknown EPI_SL_450409, EPI_SL_450410 Unknown EPI_SL_450409, EPI_SL_450410 Unknown EPI_SL_450400, EPI_SL_450410 EPI_SL_450400, EPI_SL_450410 Unknown EPI_SL_450500, EPI_SL_450501 EPI_SL_450500, EPI_SL_450501 EPI_SL_450500, EPI_SL_450501 EPI_SL_450500, EPI_SL_450501 EPI_SL_450500, EPI_SL_450501 EPI_SL_450500, EPI_SL_450501 EPI_SL_450500, EPI_SL_45134, EPI_SL_451344, EPI_SL_451359, EPI_SL_451374, EPI_SL_451378, EPI_SL_451380, EPI_S	see above		School of Public Health, The University of Hong Kong	Bosheng Li, Haogao Gu, Lijun Liang, Zhencui Li, Hui-Ling Yen, Yao Hu, Yingchao Song , Hanri Zeng, Tie Song, Jie Wu, Leo L.M. Poon
EPI_ISL_429102, EPI_ISL_429105 EPI_ISL_429105, EPI_ISL_429105 EPI_ISL_429105, EPI_ISL_429105 EPI_ISL_429105, EPI_ISL_429105 EPI_ISL_429105, EPI_ISL_429853 Centers for Disease Control and Prevention of Lishui  EPI_ISL_439852, EPI_ISL_439853 Centers for Disease Control and Prevention of Lishui  EPI_ISL_4304343 Institute for Medical Research, Infectious Disease Research Centre, National Institutes of Health, Ministry of Health Malaysia  EPI_ISL_430734, EPI_ISL_430735, EPI_ISL_430735, EPI_ISL_430735, EPI_ISL_430736, EPI_ISL_430735, EPI_ISL_434693, EPI_ISL_434693 EPI_ISL_434693, EPI_ISL_434693 EPI_ISL_434693, EPI_ISL_434693 EPI_ISL_434693, EPI_ISL_434693 EPI_ISL_437618, EPI_ISL_437618 EPI_ISL_437618, EPI_ISL_437618 EPI_ISL_447914, EPI_ISL_447916 EPI_ISL_447914, EPI_ISL_447916 EPI_ISL_450496 EPI_ISL_450496 EPI_ISL_450491 EPI_ISL_450491 EPI_ISL_450491 EPI_ISL_450491 EPI_ISL_450491 EPI_ISL_450491 EPI_ISL_450491 EPI_ISL_450491 EPI_ISL_450491 EPI_ISL_450590 EPI_ISL_450590 EPI_ISL_450590 EPI_ISL_450590 EPI_ISL_4505903 EPI_ISL_4505903 EPI_ISL_4505903 EPI_ISL_4505904 EPI_ISL_4505904 EPI_ISL_4505904 EPI_ISL_4505904 EPI_ISL_4505904 EPI_ISL_451314, EPI_ISL_451314, EPI_ISL_451344,	EPI_ISL_428488, EPI_ISL_428489	Centers for Disease Control, R.O.C. (Taiwan)	Centers for Disease Control, R.O.C. (Taiwan)	Ji-Rong Yang, Yu-Chi Lin, Jung-Jung Mu, Ming-Tsan Liu
EPI_ISL_429852, EPI_ISL_429853 Centers for Disease Control and Prevention of Lishui  EPI_ISL_43043  Institute for Medical Research, Infectious Disease Research Centre, National Institutes of Health, Ministry of Health Malaysia  EPI_ISL_430744, EPI_ISL_430735, EPI_ISL_430735, EPI_ISL_430734, EPI_ISL_430735, EPI_ISL_430734, EPI_ISL_430735, EPI_ISL_430735, EPI_ISL_430736, EPI_ISL_430742  EPI_ISL_430746, EPI_ISL_430742  EPI_ISL_434662, EPI_ISL_4346634  EPI_ISL_434662, EPI_ISL_434664  EPI_ISL_437618, EPI_ISL_436664  EPI_ISL_437618, EPI_ISL_436664  EPI_ISL_437618, EPI_ISL_437623  EPI_ISL_447901, EPI_ISL_447916  EPI_ISL_447901, EPI_ISL_447916  EPI_ISL_447901, EPI_ISL_447916  EPI_ISL_44664  EPI_ISL_447901, EPI_ISL_447916  EPI_ISL_450640, EPI_ISL_456410  unknown  EPI_ISL_450448  EPI_ISL_450448  Wuhan Institute of Virology, Chinese Academy of Sciences EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_451314, EPI_ISL_451315, EPI_ISL_451346, EPI_ISL_451346, EPI_ISL_451346, EPI_ISL_451382, EPI_ISL_		The First Affiliated Hospital of Guangzhou Medical University		Yanqun Wang, Daxi Wang, Lu Zhang, Wanying Sun, Zhaoyong Zhang et al.
Prevention of Lishui  EPI_ISL_430443 Institute for Medical Research, Infectious Disease Research Centre, National Institutes of Health, Ministry of Health Malaysia  EPI_ISL_430734, EPI_ISL_430735, EPI_ISL_430735, EPI_ISL_430735, EPI_ISL_430736, EPI_ISL_430742 EPI_ISL_430736, EPI_ISL_430742 EPI_ISL_43693, EPI_ISL_43693, EPI_ISL_43693, EPI_ISL_43693, EPI_ISL_43693 EPI_ISL_437621, unknown Faculty of Medical Prevention of Health. Department of medical Sciences, Ministry of Public Health, Thailand EPI_ISL_447910, EPI_ISL_447910, EPI_ISL_447916 EPI_ISL_447916 EPI_ISL_447916 EPI_ISL_447916 EPI_ISL_447916 EPI_ISL_447916 EPI_ISL_4469487 unknown Department of Respiratory and Critical Care Ministry of Public Health, Thailand EPI_ISL_450496, EPI_ISL_450496 burnungrad international hospital PI_ISL_450496 EPI_ISL_450496 Unknown Microbiology EPI_ISL_450496 EPI_ISL_450496 Unknown Microbiology EPI_ISL_450496 Unknown EP		The First Affiliated Hospital of Guangzhou Medical University		
Centre, National Institutes of Health, Ministry of Health Malaysia  EPI_ISL_430734, EPI_ISL_430735, EPI_ISL_430742  EPI_ISL_430736, EPI_ISL_430735, EPI_ISL_430742  EPI_ISL_430736, EPI_ISL_430742  EPI_ISL_430736, EPI_ISL_434694  Chinese PLA Institute for Disease Control and Prevention  EPI_ISL_434694  EPI_ISL_434694  EPI_ISL_434693, EPI_ISL_434694  EPI_ISL_434694  EPI_ISL_437621, EPI_ISL_434694  EPI_ISL_437621, EPI_ISL_437621, Institute of Health, Department of medical Sciences, Ministry of Public Health, Thailand  EPI_ISL_437623  EPI_ISL_437621, EPI_ISL_437621  EPI_ISL_437623  EPI_ISL_447906, EPI_ISL_447916  EPI_ISL_447916  EPI_ISL_447916  EPI_ISL_447916  EPI_ISL_447916  EPI_ISL_45096  EPI_ISL_450498  EPI_ISL_450409, EPI_ISL_450410  EPI_ISL_450409, EPI_ISL_450410  EPI_ISL_450409, EPI_ISL_450410  EPI_ISL_450409  EPI_ISL_450409  Wuhan Institute of Virology, Chinese Academy of Sciences  EPI_ISL_450500, EPI_ISL_450501, EPI_ISL_450503, EPI_ISL_451314, EPI_ISL_451315, EPI_ISL_451349, EPI_ISL_451349, EPI_ISL_451380, EPI_ISL_45138	EPI_ISL_429852, EPI_ISL_429853	Centers for Disease Control and Prevention of Lishui		Wang Xiaoguang,Ji Qiaoying,Ji Jiansong,Ye Bifeng,Ye Ling
EPI_ISL_434663, EPI_ISL_434664 unknown Microbiology, The University of Hong Kong  EPI_ISL_434663, EPI_ISL_434693, Bamrasnaradura hospital National Institute of Health. Department of medical Sciences, Ministry of Public Health, Thailand  EPI_ISL_437618, EPI_ISL_437621, EPI_ISL_437621, EPI_ISL_437623, PII_ISL_437623, PII_ISL_437623, PII_ISL_437623, PII_ISL_437623, PII_ISL_437623, PII_ISL_437623, PII_ISL_437623, PII_ISL_447910, EPI_ISL_447910, EPI_ISL_447916, EPI_ISL_447916, EPI_ISL_447916, EPI_ISL_447916, EPI_ISL_447916, PII_ISL_447916, PII_ISL_447916, PII_ISL_447916, PII_ISL_450196, PII_ISL_451315, PII_ISL_451346, P	EPI_ISL_430443	Centre, National Institutes of Health, Ministry of Health	Centre, National Institutes of Health, Ministry of Health	Suppiah.J, Mohd-Zawawi.Z, Kalyanasundram.J, Azizan.M-A, Mat-Sharani.S, Hisham.H-A, Tan.L-P, Abdul-Wahid.M-Z, Tengku-Rogayah.TAR, Mohd-Zain.R, Ahmad.N, Thayan.R
EPI_ISL_434693, EPI_ISL_434693, EPI_ISL_434693, EPI_ISL_434694  EPI_ISL_43694  EPI_ISL_437621, unknown Faculty of Medicine Fluidity of Public Health, Thailand  EPI_ISL_437623, unknown Faculty of Medicine Fluidity of Public Health, Thailand  EPI_ISL_447908, EPI_ISL_447910, Unknown Department of Respiratory and Critical Care Ministry of Public Health, Thailand  EPI_ISL_449487 unknown Department of Respiratory and Critical Care Wang, X., Zhou, Q., He, Y., Liu, L., Ma, X., Wei, X., Jiang, N., Liang, Yang, D., Zhang, J., Yang, B., Jiang, N., Deng, T., Zhai, B., Gao EPI_ISL_450196 bumrungrad international hospital winknown Microbiology  EPI_ISL_450409, EPI_ISL_450410 unknown Microbiology  EPI_ISL_450444 20 Dongda Street, Fengtal District, Beijing, Beijing 100071, China EPI_ISL_450409, EPI_ISL_450409, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_451315, EPI_ISL_451344, EPI_ISL_451345, EPI_ISL_451344, EPI_ISL_		Chinese PLA Institute for Disease Control and Prevention	Chinese PLA Institute for Disease Control and Prevention	Peng LiJinhui Li, Lizhong Li
EPI_ISL_437618, EPI_ISL_437621, unknown Faculty of Medicine Rodpan,A., Joyjinda,Y., Wacharapluesadee,S., Buathong,R., EPI_ISL_437618, EPI_ISL_437623 PI EPI_ISL_447909, EPI_ISL_447910, p. n/a National Institute of Health. Department of medical Sciences, Ministry of Public Health, Thailand EPI_ISL_447914, EPI_ISL_447916 Unknown Department of Respiratory and Critical Care Wang,X., Zhou,Q., He,Y., Liu,L., Ma,X., Wei,X., Jiang,N., Liang, Yang,D., Zhang,J., Yang,B., Jiang,N., Deng,T., Zhai,B., Gao EPI_ISL_450196 bumrungrad international hospital National Institute of Health. Department of medical Sciences, Ministry of Public Health, Thailand EPI_ISL_450409, EPI_ISL_450410 unknown Microbiology EPI_ISL_450409, EPI_ISL_450410 unknown Microbiology EPI_ISL_450444 20 Dongda Street, Fengtai District, Beijing, Beijing 100071, China EPI_ISL_450489 Wuhan Institute of Virology, Chinese Academy of Sciences EPI_ISL_450500, EPI_ISL_450501, unknown EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451314, EPI_ISL_451315, EPI_ISL_451395, EPI_ISL_451318, EPI_ISL_4513182, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_451318, EPI_ISL_4513182, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_4513182, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_451318, EPI_ISL_4513182,	EPI_ISL_434563, EPI_ISL_434564	unknown	Microbiology, The University of Hong Kong	To,K.K.W. and Yuen,KY.
EPI_ISL_447909, EPI_ISL_447910, n/a National Institute of Health, Department of medical Sciences, Ministry of Public Health, Thailand  EPI_ISL_447916, unknown Department of Respiratory and Critical Care Wang, X., Zhou, Q., He, Y., Liu, L., Ma, X., Wei, X., Jiang, N., Liang, Yang, D., Zhang, J., Yang, B., Jiang, N., Deng, T., Zhai, B., Gao  EPI_ISL_450196 bumrungrad international hospital National Institute of Health, Department of medical Sciences, Yang, D., Zhang, J., Yang, B., Jiang, N., Deng, T., Zhai, B., Gao  EPI_ISL_450409, EPI_ISL_450410 unknown Ministry of Public Health, Thailand  EPI_ISL_450444 20 Dongda Street, Fengtai District, Beijing, Beijing 100071, China  EPI_ISL_450489 Wuhan Institute of Virology, Chinese Academy of Sciences  EPI_ISL_450500, EPI_ISL_450501, Unknown Case (Sept.) SL_450500, EPI_ISL_450501, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_450500, EPI_ISL_451344, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451378, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451389, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451380, EPI_ISL_451387, EPI_ISL_451399, EPI_ISL_451399		Bamrasnaradura hospital		Pilailuk,Okada; Siripaporn,Phuygun; Thanutsapa,Thanadachakul; Sittiporn,Parnmen;Warawan,Wongboot; Sunthareeya,Waicharoen; Malinee,Chittaganpitch
EPI_ISL_447916 Unknown Department of Respiratory and Critical Care Wang,X., Zhou,Q., He,Y., Liu,L., Ma,X., Wei,X., Jiang,N., Liang, Yang,D., Zhang,J., Yang,B., Jiang,N., Deng,T., Zhai,B., Gao EPI_ISL_450196 bumrungrad international hospital National Institute of Health. Department of medical Sciences, Ministry of Public Health, Thailand  EPI_ISL_450409, EPI_ISL_450410 unknown Microbiology EPI_ISL_450444 20 Dongda Street, Fengling, Beijing 100071, China EPI_ISL_450489 Wuhan Institute of Virology, Chinese Academy of Sciences EPI_ISL_450500, EPI_ISL_450501, Unknown Unkno		unknown	Faculty of Medicine	Rodpan,A., Joyjinda,Y., Wacharapluesadee,S., Buathong,R., Ghai,S., Petcharat,S., Bunprakob,S., Sirichan,N., Prasithsirikul,W., Mungaomklang,A., Plipat,T. and Hemachudha,T.
EPI_ISL_450196 bumrungrad international hospital National Institute of Health. Department of medical Sciences, Ministry of Public Health, Thailand  EPI_ISL_450409, EPI_ISL_450410 unknown Ministry of Public Health, Thailand  EPI_ISL_450444 20 Dongda Street, Fengtai District, Beijing, Beijing 100071, China  EPI_ISL_450449 Wuhan Institute of Virology, Chinese Academy of Sciences  EPI_ISL_450500, EPI_ISL_450501, EPI_ISL_450501, EPI_ISL_450502, EPI_ISL_450503, EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_451313, EPI_ISL_451314, EPI_ISL_451344, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451379, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451389, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451389, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451399, EPI_ISL_451389, EP		n/a		Pilailuk,Okada; Siripaporn,Phuygun; Thanutsapa,Thanadachakul; Sittiporn,Parnmen;Warawan,Wongboot; Sunthareeya,Waicharoen; Malinee,Chittaganpitch
Ministry of Public Health, Thailand   Ministry of Public Health, Public Heal	EPI_ISL_449487	unknown	Department of Respiratory and Critical Care	Wang,X., Zhou,Q., He,Y., Liu,L., Ma,X., Wei,X., Jiang,N., Liang,L., Zheng,Y., Ma,L., Xu,Y., Yang,D., Zhang,J., Yang,B., Jiang,N., Zheng,Y., Ma,L., Xu,Y., Yang,D., Zhang,J., Yang,B., Jiang,N., Deng,T., Zhai,B., Gao,Y., Liu,W., Bai,X., Pan,T., Wang,G., Chang,Y., Zhang,Z., Shi,H., Ma,W.L. and Gao,Z.
EPI_ISL_450444 20 Dongda Street, Fengtai District, Beijing, Beijing 100071, China  EPI_ISL_450489 Wuhan Institute of Virology, Chinese Academy of Sciences  EPI_ISL_450500, EPI_ISL_450501, EPI_ISL_450503, EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_451314, EPI_ISL_451314, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451374, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451396, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EP	EPI_ISL_450196	bumrungrad international hospital		Pilailuk,Okada; Siripaporn,Phuygun; Thanutsapa,Thanadachakul; Sittiporn,Parnmen;Warawan,Wongboot; Sunthareeya,Waicharoen; Malinee,Chittaganpitch
China  EPI_ISL_450489 Wuhan Institute of Virology, Chinese Academy of Sciences  EPI_ISL_450500, EPI_ISL_450501,  EPI_ISL_450502, EPI_ISL_450503,  EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_451313, EPI_ISL_451314, EPI_ISL_451315, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451378, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451314, EPI_ISL_451314, EPI_ISL_451314, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451314, EPI_ISL_4513	EPI_ISL_450409, EPI_ISL_450410	unknown	Microbiology	To,K.K.W., Yuen,KY.
EPI_ISL_450500, EPI_ISL_450501, unknown CAS Key Laboratory of Special Pathogens and Biosafety and Si,H., Zh EPI_ISL_450502, EPI_ISL_450503, Center for Emerging Infectious Diseases EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_451313, EPI_ISL_451314, EPI_ISL_451315, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451378, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_45	EPI_ISL_450444		Dept. OPA, Beijing Institute of Microbiology and Epidemiology	Zhang,X.A., Fan,H., Qi,R.Z., Zheng,W., Zheng,K., Gong,J.H., Fang,L.Q. and Liu,W.
EPI_ISL_450502, EPI_ISL_450503, Center for Emerging Infectious Diseases EPI_ISL_450504  EPI_ISL_450504  EPI_ISL_451313, EPI_ISL_451314, EPI_ISL_451315, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451378, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_IS	EPI_ISL_450489	Wuhan Institute of Virology, Chinese Academy of Sciences	Wuhan Institute of Virology, Chinese Academy of Sciences	Si,H., Zhu,Y., Lin,H., Xie,S., Shi,Z. and Zhou,P.
EPI_ISL_451313, EPI_ISL_451314, EPI_ISL_451315, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_ISL_451379, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_451395, EPI_ISL_451396, EPI_ISL_451396	EPI_ISL_450502, EPI_ISL_450503,	unknown		Si,H., Zhu,Y., Lin,H., Xie,S., Shi,Z., Zhou,P.
West China Hagarital of Sighuan Haiyaraity State Koy Labaratany of Sighuan Haiyaraity Paguyan Du Miniis Wang Chan Chan Chan Chan Vangahan 7		1315, EPI_ISL_451344, EPI_ISL_451359, EPI_ISL_451374, EPI_	_ISL_451378, EPI_ISL_451379, EPI_ISL_451380, EPI_ISL_451	1382, EPI_ISL_451387, EPI_ISL_451392, EPI_ISL_451395, EPI_ISL_451398
see above vest China hospital of Sichidan Oniversity State Rey Laboratory of Biotherapy of Sichidan Oniversity Baowen Du, Mingin Wang, Chao Fang, Chidan Chen, Fongzhao 2	see above	West China Hospital of Sichuan University	State Key Laboratory of Biotherapy of Sichuan University	Baowen Du, Minjin Wang, Chao Tang, Chuan Chen, Yongzhao Zhou, Mingxia Yu, Hancheng Wei, Weimin Li, Jing-wen Lin, Jia Geng, Binwu Ying, Lu Chen
	EPI_ISL_455686	unknown	Department of Microbiology	Gao,Q., Bao,L., Mao,H., Wang,L., Xu,K., Yang,M., Li,Y., Zhu,L., Wang,N., Lv,Z., Gao,H., Ge,X., Kan,B., Hu,Y., Liu,J., Cai,F., Jiang,D., Yin,Y., Qin,C., Li,J., Gong,X., Lou,X., Shi,W., Wu,D., Zhang,H., Deng,W., Lu,J., Li,C., Wang,X., Yin,W., Zhang,Y., Sun,Y.
EPI_ISL_462283 National Public Health Laboratory, National Centre for National Public Health Laboratory, National Public Health Laboratory, National Public Health Laboratory, National Centre for Mak TM, Or Infectious Diseases	EPI_ISL_462283			Mak TM, Octavia S, Chavatte JM, Cui L, Lin RTP
EPI_ISL_463897 Shaoxing Center for Disease Control and Prevention Department of Pathology and Laboratory Medicine, University Jinkun Chen, Evann E. Hilt, Huan Wu, Zhuojing Jiang, QinCl of California Los Angeles	EPI_ISL_463897	Shaoxing Center for Disease Control and Prevention		Jinkun Chen, Evann E. Hilt, Huan Wu, Zhuojing Jiang, QinChao Zhang, JiLing Wang, Yifang Wang, Fan Li, Ziqin Li, Jialiang Tang, Shangxin Yang
EPI_ISL_479799, EPI_ISL_479800 Sapporo City Institute of Public Health Pathogen Genomics Center, National Institute of Infectious Tsuyoshi Sekizuka, Asami Ohnishi, Kentaro Itokawa, i Diseases	EPI_ISL_479799, EPI_ISL_479800	Sapporo City Institute of Public Health		Tsuyoshi Sekizuka, Asami Ohnishi, Kentaro Itokawa, Rina Tanaka, Masanori Hashino, Hajime Kamiya, Motoi Suzuki, Makoto Kuroda
EPI_ISL_493149, EPI_ISL_493150, EPI_ISL_493151, EPI_ISL_493152, EPI_ISL_493153, EPI_ISL_493154, EPI_ISL_493155, EPI_ISL_493156, EPI_ISL_493157, EPI_ISL_493158, EPI_ISL_493159, EPI_ISL_493161, EPI_ISL_493163, EPI_ISL_493176, EPI_ISL_493177				
E11_0C_495170, E11_10C_495177	see above	National Virus Resource Center, Chinese Academy of Sciences, Wuhan 430071, China	Computational Virology Group, Center for Bacteria and Viruses Resources and Bioinformation, Wuhan Institute of Virology, Chinese Academy of SciencesWuhan 430071, China	Jianjun Chen, Yi Yan, Yi Huang, Jin Xiong, Hongping Wei, Di Liu
see above National Virus Resource Center, Chinese Academy of Sciences, Wuhan 430071, China Cinnese Academy of Viruses Resources and Bioinformation, Wuhan Institute of Virology, Chinese Academy of SciencesWuhan 430071,	EPI_ISL_495459	Centers for Disease Control and Prevention of Lishui	Department of InspectionCenters for Disease Control and Prevention of Lishui	Wang Xiaoguang,Ji Qiaoying,Ji Jiansong,Ye Bifeng,Ye Ling
see above National Virus Resource Center, Chinese Academy of Sciences, Wuhan 430071, China Viruses Resources and Bioinformation, Wuhan Institute of Virology, Chinese Academy of SciencesWuhan 430071, China  EPLISL_495459 Centers for Disease Control and Prevention of Lishui Department of InspectionCenters for Disease Control and Wang Xiaoguang	EPI_ISL_497797, EPI_ISL_497827,	Department of Microbiology, The University of Hong Kong	Department of Microbiology, The University of Hong Kong	Kelvin K.W. To, Kwok-Yung Yuen

EPI ISL 497860 EPI ISL 514752 Infectious Disease Control Center, Center for Disease Control Infectious Disease Control Center, Center for Disease Control and Prevention of PLA EPI\_ISL\_529149 Technology Centre, Guangzhou Customs EPI\_ISL\_539333, EPI\_ISL\_539334, EPI\_ISL\_539335, EPI\_ISL\_539336, EPI\_ISL\_539337, EPI\_ISL\_539338, EPI\_ISL\_539339 Institute of Disease Control and Prevention, People's

Liberation Army

Technology Centre, Guangzhou Customs Institute of Disease Control and Prevention, People's Liberation Army

and Prevention of PLA

Huang, J., Shi, Y., Sun, J., Zheng, K., Zhu, ., Sun, F., Zhuang, Z., Dai, J., Zhang, Z., Huang, S., Wang, Y., Li, X. Qiu,S., Li,P.

Li, P.