

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.

Lighthouse Lab in Cambridge

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

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Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome 19 Genomics UK Consortium Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) EPI ISL 600138, EPI ISL 600171, EPI ISL 600175, EPI ISL 600207, EPI ISL 600207, EPI ISL 600220, EPI ISL 600245, EPI ISL 600295, EPI ISL 600320, EPI ISL 600328, EPI ISL 600376, EPI ISL 600400, EPI ISL 600401, EPI ISL 600407 Lighthouse Lab in Glasgow Wellcome Sanger Institute for the COVID- Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia see above 19 Genomics UK Consortium Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) FPI ISI 602277 MD PHI MD DHI Maryland Department of Health Laboratories Administration EPI ISL 602304 Istituto Zooprofilattico Sperimentale del Mezzogiorno U.O. Diagnostica Virologica Dip. Sanità Maurizio Viscardi, Lorena Cardillo , e Giovanna Fusco Animale IZSM SA Pathology EPI_ISL_602577, EPI_ISL_602580, EPI_ISL_602581 SA Pathology Lex Leong, Julien Soubrier, Chuan Kok Lim, Song Gao, Mark Turra, Karin Kassahn, Ivan Bastian, Geoff Higgins EPI ISL 602875, EPI ISL 602900 NHI S-IAI CH KRISP, KZN Research Innovation and Giandhari J, Pillay S, Lessells R, Mdlalose K, York D, Khan S, Tegally H, Wilkinson E, de Oliveira T Sequencing Platform EPI_ISL_602983, EPI_ISL_602984, EPI_ISL_602985, EPI_ISL_602986, EPI_ISL_602987, EPI_ISL_602988, EPI_ISL_602988, EPI_ISL_602998, EPI_ISL_602990, EPI_ISL_602994, EPI_ISL_602994, EPI_ISL_602995, EPI_ISL_602996, EPI_ISL_602997, EPI_ISL_603006, EPI_ISL_603008, EPI_ISL_603008, EPI_ISL_603008, EPI_ISL_603008, EPI_ISL_603008, EPI_ISL_603008, EPI_ISL_603008, EPI_ISL_602998, EPI_ISL_602998, EPI_ISL_602998, EPI_ISL_603008, EPI_ISL_603008 Minnesota Department of Health, Public Minnesota Department of Health, Public Health Laboratory Matt Plumb, Jacob Garfin, Alexandra Lorentz, and Xiong Wang Health Laboratory EPI_ISL_603012, EPI_ISL_603013, EPI_ISL_603014 Essentia Health-St. Mary's Medical Center Minnesota Department of Health, Public Matt Plumb, Jacob Garfin, Alexandra Lorentz, and Xiong Wang Health Laboratory EPI ISL 603015 Minnesota Department of Health, Public Health Laboratory Minnesota Department of Health, Public Matt Plumb, Jacob Garfin, Alexandra Lorentz, and Xiong Wang Health Laboratory Minnesota Department of Health, Public EPI_ISL_603016, EPI_ISL_603017 Essentia Health-St. Mary's Medical Center Matt Plumb, Jacob Garfin, Alexandra Lorentz, and Xiong Wang Health Laboratory EPI_ISL_603018, EPI_ISL_603019, EPI_ISL_603020 Minnesota Department of Health, Public Health Laboratory Minnesota Department of Health, Public Matt Plumb, Jacob Garfin, Alexandra Lorentz, and Xiong Wang Health Laboratory SA Pathology SA Pathology EPI ISL 603128 Lex Leong, Julien Soubrier, Chuan Kok Lim, Song Gao, Mark Turra, Karin Kassahn, Iyan Bastian, Geoff Higgins EPI ISL 603189, EPI ISL 603190, EPI ISL 603191, EPI ISL 603193, EPI ISL 603193, EPI ISL 603194, EPI ISL 603196, EPI ISL 603197, EPI ISL 603201, EPI ISL 603202, EPI ISL 603203, EPI ISL 603212, EPI ISL 603214 Respiratory Virus Unit, Microbiology Services Colindale, Public Health England Respiratory Virus Unit, Microbiology PHE Covid Sequencing Team Services Colindale, Public Health England EPI ISL 603274, EPI ISL 603275, EPI ISL 603275, EPI ISL 603290, EPI ISL 603290, EPI ISL 603292, EPI ISL 603327, EPI ISL 603425, EPI ISL 603425, EPI ISL 603479, EPI ISL 603479, EPI ISL 603478, EPI ISL 603311, EPI ISL 603311, EPI ISL 603479, EPI ISL 603327, EPI ISL 603425, EPI ISL 603479, EPI ISL 603479 $EPT[SL_{603496}, EPT]SL_{603511}, EPT[SL_{603511}, EPT]SL_{603512}, EPT[SL_{603512}, EPT]SL_{603578}, EPT[SL_{603578}, EPT]SL_{603599}, EPT[SL_{603599}, EPT]SL_{603599}, EPT[$ EPI_ISL_603708, EPI_ISL_603724, EPI_ISL_603726, EPI_ISL_603736, EPI_ISL_603740, EPI_ISL_603756 see above Viollier AG Department of Biosystems Science and Christian Beisel, Sarah Nadeau, Ivan Topolsky, Pedro Ferreira, Philipp Jablonski, Susana Posada-Céspedes, Tobias Schär, Ina Nissen, Natascha Santacroce, Elodie Burcklen, Christiane Beckmann, Maurice Redondo, Engineering, ETH Zürich Olivier Kobel, Christoph Noppen, Sophie Seidel, Noemie Santamaria de Souza, Niko Beerenwinkel, Tanja Stadle EPI_ISL_606975, EPI_ISL_606065, EPI_ISL_606145, EPI_ISL_606146, EPI_ISL_606153, EPI_ISL_606154, EPI_ISL_606205, EPI_ISL_606211, EPI_ISL_606244, EPI_ISL_606248, EPI_ISL_606276 Lighthouse Lab in Alderley Park Wellcome Sanger Institute for the COVID- Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John 19 Genomics UK Consortium Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team EPI_ISL_606298, EPI_ISL_606306, EPI_ISL_606306, EPI_ISL_606326, EPI_ISL_606326, EPI_ISL_606326, EPI_ISL_606428, EPI_ISL_6065484, EPI_ISL_606549, EPI_ISL_606429, EPI_ISL_606549, EPI_ISL_606559, EPI_ISL_606429, EPI_ISL_606559, EPI_ISL_606559, EPI_ISL_606559, EPI_ISL_606549, EPI_ISL_606549, EPI_ISL_606429, EPI_ISL_606549, EPI_ISL_606549, EPI_ISL_606549, EPI_ISL_606429, EPI_ISL_606429, EPI_ISL_606429, EPI_ISL_606449, EPI_ISL_606549, EPI_ISL_606449, EPI_ISL_606449, EPI_ISL_606449, EPI_ISL_606449, EPI_ISL_606549, EPI_ISL_606449, EPI_ISL_606449, EPI_ISL_606449, EPI_ISL_606549, EPI_ISL_606549, EPI_ISL_606449, EPI_ISL_606449, EPI_ISL_606449, EPI_ISL_606449, EPI_ISL_606549, EPI_ISL_60654 EPTISL_606586, EPTISL_606590, EPTISL_606590, EPTISL_6066591, E EPI ISL 606827, EPI ISL 606843, EPI ISL 606854, EPI ISL 606858, EPI ISL 606893, EPI ISL 606898 Lighthouse Lab in Milton Keynes Wellcome Sanger Institute for the COVID- The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome see above 19 Genomics UK Consortium Sanger Institute COVID-19 Surveillance Team EPI_SL_606992, EPI_SL_607037, EPI_SL_607037, EPI_SL_607092, EPI_SL_607121, EPI_SL_607121, EPI_SL_607125, EPI_SL_607123, EPI_SL_607149, EPI_SL_607149, EPI_SL_607159, EPI_SL_607159, EPI_SL_607249, EPI_SL_607249, EPI_SL_607260, EPI_SL_607270, EPI_SL_607277, EPI_SL_607277, EPI_SL_607277, EPI_SL_607149, EPI_SL_607270, EPI_SL_607289, EPI_SL_607149, EPI_SL Wellcome Sanger Institute for the COVID- Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Lighthouse Lab in Alderley Park Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Tean EPI_SL_607298, EPI_JSL_607307, EPI_SL_607307, EPI_SL_607313, EPI_JSL_607319, EPI_JSL_607319, EPI_JSL_607349, EPI_JSL_60749, EPI_JSL_607523, EPI_JSL_607523, EPI_JSL_607523, EPI_JSL_607523, EPI_JSL_607523, EPI_JSL_607549, EPI_JSL_607523, EPI_JSL_607549, EPI_JSL_607549, EPI_JSL_607614 see above Lighthouse Lab in Milton Keynes Wellcome Sanger Institute for the COVID- The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team $EPI_{1}SL_{6}07681$, $EPI_{1}SL_{6}07686$, $EPI_{1}SL_{6}077686$, $EPI_{1}SL_{6}077707$, $EPI_{1}SL_{6}07724$, $EPI_{1}SL_{6}08124$, $EPI_{1}SL_{6}07756$, $EPI_{1}SL_{6}07756$, $EPI_{1}SL_{6}07804$, $EPI_{1}SL_{6}07804$, $EPI_{1}SL_{6}08124$ EPI ISL 608263, EPI ISL 608351 Wellcome Sanger Institute for the COVID- Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K, Jackson, Jan Johnston, Dominic Kwiatkowski, Cordelia Langford, John see above Lighthouse Lab in Alderley Park 19 Genomics UK Consortiur Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Tean EPI_ISL_608353 Lighthouse Lab in Cambridge Wellcome Sanger Institute for the COVID- Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K, Iackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the 19 Genomics UK Consortium Wellcome Sanger Institute COVID-19 Surveillance Team EPI_ISL_608366, EPI_ISL_608385 Wellcome Sanger Institute for the COVID- Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Lighthouse Lab in Alderley Park 19 Genomics UK Consortium Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team EPI ISL 608394, EPI ISL 608398, EPI ISL 608402, Lighthouse Lab in Cambridge Wellcome Sanger Institute for the COVID- Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the EPI_ISL_608436, EPI_ISL_608467, EPI_ISL_608478, Wellcome Sanger Institute COVID-19 Surveillance Team 19 Genomics UK Consortium EPI_ISL_608485, EPI_ISL_608493, EPI_ISL_608495 FPI ISI 608512 Wellcome Sanger Institute for the COVID- Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Lighthouse Lab in Alderley Park 19 Genomics UK Consortium Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team EPI_ISL_608521, EPI_ISL_608530, EPI_ISL_608531, Lighthouse Lab in Cambridge Wellcome Sanger Institute for the COVID- Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the EPI ISL 608540 19 Genomics UK Consortium Wellcome Sanger Institute COVID-19 Surveillance Team EPI ISL 608554 Lighthouse Lab in Alderley Park Wellcome Sanger Institute for the COVID- Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team 19 Genomics UK Consortium EPI_ISL_608566, EPI_ISL_608571, EPI_ISL_608577 Lighthouse Lab in Cambridge Wellcome Sanger Institute for the COVID- Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K, Jackson, Jan Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team 19 Genomics UK Consortium EPI_ISL_608603 Lighthouse Lab in Alderley Park Wellcome Sanger Institute for the COVID- Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John

19 Genomics LIK Consortium

EPI_ISL_597427, EPI_ISL_597446

EPI ISL 608616, EPI ISL 608629, EPI ISL 608632

EPI_ISL_608636

Lighthouse Lab in Cambridge

Lighthouse Lab in Cambridge

EPI_ISL_608648, EPI_ISL_608649, EPI_ISL_608661	Lighthouse Lab in Alderley Park	Wellcome Sanger Institute for the COVID-	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John
		19 Genomics UK Consortium	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608671	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608675	Lighthouse Lab in Alderley Park	19 Genomics UK Consortium	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608678, EPI_ISL_608679	Lighthouse Lab in Cambridge	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608717, EPI_ISL_608723, EPI_ISL_608750, EPI_ISL_608762, EPI_ISL_608766, EPI_ISL_608773, EPI_ISL_608789, EPI_ISL_608805, EPI_ISL_608818	Lighthouse Lab in Milton Keynes	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608852	Lighthouse Lab in Cambridge	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608863, EPI_ISL_608864	Lighthouse Lab in Alderley Park	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608876	Lighthouse Lab in Cambridge	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608903, EPI_ISL_608944, EPI_ISL_608946	Lighthouse Lab in Alderley Park		Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608990	Lighthouse Lab in Cambridge	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_608994, EPI_ISL_609011, EPI_ISL_609020, EPI_ISL_609052	Lighthouse Lab in Alderley Park		Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_609054	Lighthouse Lab in Cambridge		Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_609074	Lighthouse Lab in Alderley Park	Wellcome Sanger Institute for the COVID-	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John
EPI_ISL_609076	Lighthouse Lab in Milton Keynes		Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome
EPI_ISL_609095, EPI_ISL_609104	Lighthouse Lab in Alderley Park		Sanger Institute COVID-19 Surveillance Team Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John
EPI ISL_609111	Lighthouse Lab in Cambridge	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID-	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the
 EPI_ISL_609115	Lighthouse Lab in Milton Keynes	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID-	Wellcome Sanger Institute COVID-19 Surveillance Team The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome
EPI ISL 609127, EPI ISL 609141	Lighthouse Lab in Alderley Park	19 Genomics UK Consortium	Sanger Institute COVID-19 Surveillance Team Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John
EPI_ISL_609188	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the
	Lighthouse Lab in Glasgow	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID-	Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_609194		19 Genomics UK Consortium	Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_609195, EPI_ISL_609196, EPI_ISL_609204	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI ISL_609226, EPI_ISL_609243, EPI_ISL_609247, EPI_ISL_609272, EPI_ISL_609280, EPI_ISL_609290, EPI_ISL_609293, EPI_ISL_609294, EPI_ISL_609299	Lighthouse Lab in Milton Keynes	19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
	344, EPI_ISL_609346, EPI_ISL_609347, EPI_ISL_609363, EPI_ISL_609375, EPI_ISL	_609421, EPI_ISL_609436, EPI_ISL_609481,	EPI_ISL_609497, EPI_ISL_609503, EPI_ISL_609516, EPI_ISL_609542, EPI_ISL_609546, EPI_ISL_609555, EPI_ISL_609566, EPI_ISL_609572, EPI_ISL_609605, EPI_ISL_609638, EPI_ISL_609659, EPI_ISL_609666, EPI_ISL_609693,
see above	Lighthouse Lab in Cambridge		Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the
EPI_ISL_610064, EPI_ISL_610104	University of Michigan Clinical Microbiology Laboratory	19 Genomics UK Consortium Lauring Lab, University of Michigan, Department of Microbiology and	Wellcome Sanger Institute COVID-19 Surveillance Team Valesano
EPI_ISL_610364, EPI_ISL_610389, EPI_ISL_610424, EPI_ISL_610	426, EPI_ISL_610455, EPI_ISL_610504, EPI_ISL_610516, EPI_ISL_610535, EPI_ISL	Immunology _610548, EPI_ISL_610553, EPI_ISL_610568,	EPI_ISL_610572, EPI_ISL_610581
see above	Lighthouse Lab in Alderley Park	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
EPI_ISL_610644, EPI_ISL_610645, EPI_ISL_610665, EPI_ISL_610 see above	669, EPI_ISL_610676, EPI_ISL_610695, EPI_ISL_610698, EPI_ISL_610720, EPI_ISL Lighthouse Lab in Cambridge		EPI_ISL_610744, EPI_ISL_610745, EPI_ISL_610749, EPI_ISL_610777, EPI_ISL_610783 Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team
			EPI_ISL_610901, EPI_ISL_610902, EPI_ISL_610904, EPI_ISL_610909, EPI_ISL_610911, EPI_ISL_610915
see above	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_610943, EPI_ISL_610957, EPI_ISL_610961, EPI_ISL_611 see above	021, EPI_ISL_611050, EPI_ISL_611107, EPI_ISL_611110, EPI_ISL_611135, EPI_ISL		
	Lighthouse Lab in Alderley Park	Wellcome Sanger Institute for the COVID-	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John
EPI ISL 611299, EPI ISL 611323, EPI ISL 611338,	Lighthouse Lab in Alderley Park Lighthouse Lab in Glasgow	19 Genomics UK Consortium	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K, Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia
		19 Genomics UK Consortium	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderfely Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_611299, EPI_ISL_611323, EPI_ISL_611338, EPI_ISL_611351, EPI_ISL_611385, EPI_ISL_611414,		19 Genomics UK Consortium Wellcome Sanger Institute for the COVID-	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia
EPI_ISL_611299, EPI_ISL_611323, EPI_ISL_61338, EPI_ISL_611351, EPI_ISL_611385, EPI_ISL_611414, EPI_ISL_61423 EPI_ISL_612126, EPI_ISL_612127, EPI_ISL_612128,	Lighthouse Lab in Glasgow Virology Department, Royal Infirmary of Edinburgh, NHS Lothian / School of Biological Sciences, University of Edinburgh / Institute of Genetics and	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium COVID-19 Genomics UK (COG-UK)	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_611299, EPI_ISL_611323, EPI_ISL_611338, EPI_ISL_611351, EPI_ISL_611385, EPI_ISL_611414, EPI_ISL_612126, EPI_ISL_612127, EPI_ISL_612128, EPI_ISL_612129	Lighthouse Lab in Glasgow Virology Department, Royal Infirmary of Edinburgh, NHS Lothian / School of Biological Sciences, University of Edinburgh / Institute of Genetics and Molecular Medicine, University of Edinburgh	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium COVID-19 Genomics UK (COG-UK) Consortium COVID-19 Genomics UK (COG-UK)	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) McHugh M, Dewar R, Rooke S, Gallagher M, Balcaza C, O'Toole Á, Scher E, Hill V, McCrone JT, Colquhoun R, Yu X, Jackson B, Rambaut A, Williams TC, Templeton K
EPI_ISL_611299, EPI_ISL_611323, EPI_ISL_611338, EPI_ISL_611351, EPI_ISL_611385, EPI_ISL_611414, EPI_ISL_611423 EPI_ISL_612126, EPI_ISL_612127, EPI_ISL_612128, EPI_ISL_612130	Lighthouse Lab in Glasgow Virology Department, Royal Infirmary of Edinburgh, NHS Lothian / School of Biological Sciences, University of Edinburgh / Institute of Genetics and Molecular Medicine, University of Edinburgh University of Exeter	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium COVID-19 Genomics UK (COG-UK) Consortium COVID-19 Genomics UK (COG-UK) Consortium COVID-19 Genomics UK (COG-UK)	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K, Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) McHugh M, Dewar R, Rooke S, Gallagher M, Balcaza C, O'Toole Á, Scher E, Hill V, McCrone JT, Colquhoun R, Yu X, Jackson B, Rambaut A, Williams TC, Templeton K Ben Temperton,Aaron Jeffries,Michelle Michelsen,Joanna Warwick-Dugdale,Audrey Farbos,Robyn Manley,Stephen Michell,Jane Masoli Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wiicox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee
EPI_ISL_611299, EPI_ISL_611323, EPI_ISL_611338, EPI_ISL_611351, EPI_ISL_611385, EPI_ISL_611414, EPI_ISL_611424, EPI_ISL_611427, EPI_ISL_612128, EPI_ISL_612126, EPI_ISL_612127, EPI_ISL_612128, EPI_ISL_612130 EPI_ISL_612132, EPI_ISL_612133 EPI_ISL_612134	Lighthouse Lab in Glasgow Virology Department, Royal Infirmary of Edinburgh, NHS Lothian / School of Biological Sciences, University of Edinburgh / Institute of Genetics and Molecular Medicine, University of Edinburgh University of Exeter Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit Northumbria University / South Tees Hospitals NHS Foundation Trust / North Cumbria Integrated Care NHS Foundation Trust / North Tees and Hartlepool NHS Foundation Trust / Newcastle Hospitals NHS Foundation Trust	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID- 19 Genomics UK (COG-UK) Consortium COVID-19 Genomics UK (COG-UK) Consortium	Sillibe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) McHugh M, Dewar R, Rooke S, Gallagher M, Balcaza C, O'Toole Á, Scher E, Hill V, McCrone JT, Colquhoun R, Yu X, Jackson B, Rambaut A, Williams TC, Templeton K Ben Temperton, Aaron Jeffries, Michelle Michelsen, Joanna Warwick-Dugdale, Audrey Farbos, Robyn Manley, Stephen Michell, Jane Masoli Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor Darren L Smith, Andrew Nelson, Matthew Bashton, Grage R Young, Joshua Loha, Johns Maland Malangud R Taria, Giles S Holt, Gary Black, Wen C Yew, Jun Bover, Pseul Baker, Steeve Liggett Sarah Essex, Jane Greenaway, Debra
EPI_ISL_611299, EPI_ISL_611323, EPI_ISL_611338, EPI_ISL_611351, EPI_ISL_611385, EPI_ISL_611414, EPI_ISL_611423 EPI_ISL_612126, EPI_ISL_612127, EPI_ISL_612128, EPI_ISL_612130 EPI_ISL_612132, EPI_ISL_612133 EPI_ISL_612134 EPI_ISL_612134	Lighthouse Lab in Glasgow Virology Department, Royal Infirmary of Edinburgh, NHS Lothian / School of Biological Sciences, University of Edinburgh / Institute of Genetics and Molecular Medicine, University of Edinburgh University of Edinburgh University of Exeter Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit Northumbria University / South Tees Hospitals NHS Foundation Trust / North Cumbria Integrated Care NHS Foundation Trust / North Tees and Hartlepool NHS Foundation Trust / Newcastle Hospitals NHS Foundation Trust 138, EPI_ISL_612139, EPI_ISL_612140, EPI_ISL_612141, EPI_ISL_612142, EPI_ISL Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit Queens Medical Centre, Clinical Microbiology Department / DeepSeq	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID- 19 Genomics UK (COG-UK) Consortium COVID-19 Genomics UK (COG-UK) CONSORTIUM £612143, EPI_SL_612144, EPI_SL_612145, COVID-19 Genomics UK (COG-UK)	Sillibe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) McHugh M, Dewar R, Rooke S, Gallagher M, Balcaza C, O'Toole A, Scher E, Hill V, McCrone JT, Colquhoun R, Yu X, Jackson B, Rambaut A, Williams TC, Templeton K Ben Temperton, Aaron Jeffries, Michelle Michelsen, Joanna Warwick-Dugdale, Audrey Farbos, Robyn Manley, Stephen Michell, Jane Masoli Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor Darren L Smith, Andrew Nelson, Matthew Bashton, Greg R Young, Joshua Loh, John Allan, Mohammad A Tariq, Giles S Holt, Gary Black, Wen C Yew, Lynn Dover, Paul Baker, Steve Liggett, Sarah Essex, Jane Greenaway, Debra Padgett, Clive Graham, Garren Scott, Edward Barton, Emma Swindells, Brendan Payne, Jennifer Collins, Yusri Taha, Gary Eltringham EPI_ISL_612147, EPI_ISL_612149, EPI_ISL_612150, EPI_ISL_612151, EPI_ISL_612152, EPI_ISL_612153, EPI_ISL_612154, EPI_ISL_612155, EPI_ISL_612157 Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor Gemma Clark, Wendy Smith, Manjinder Khakh, Vicki M Fleming, Michelle M Lister, Hannah
EPI_ISL_611299, EPI_ISL_611323, EPI_ISL_611338, EPI_ISL_611351, EPI_ISL_611355, EPI_ISL_611351, EPI_ISL_611414, EPI_ISL_611423, EPI_ISL_612126, EPI_ISL_612127, EPI_ISL_612128, EPI_ISL_612130 EPI_ISL_612130 EPI_ISL_612134 EPI_ISL_612134 EPI_ISL_612135, EPI_ISL_612136, EPI_ISL_612137, EPI_ISL_612 see above	Lighthouse Lab in Glasgow Virology Department, Royal Infirmary of Edinburgh, NHS Lothian / School of Biological Sciences, University of Edinburgh / Institute of Genetics and Molecular Medicine, University of Edinburgh University of Exeter Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit Northumbria University / South Tees Hospitals NHS Foundation Trust / North Cumbria Integrated Care NHS Foundation Trust / North Tees and Hartlepool NHS Foundation Trust / Newcastle Hospitals NHS Foundation Trust 138, EPI_ISL_612139, EPI_ISL_612140, EPI_ISL_612141, EPI_ISL_612142, EPI_ISL Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID- 19 Genomics UK (COG-UK) Consortium COVID-19 Genomics UK (COG-UK)	Silitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Silitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) McHugh M, Dewar R, Rooke S, Gallagher M, Balcaza C, O'Toole Á, Scher E, Hill V, McCrone JT, Colquhoun R, Yu X, Jackson B, Rambaut A, Williams TC, Templeton K Ben Temperton, Aaron Jeffries, Michelle Michelsen, Joanna Warwick-Dugdale, Audrey Farbos, Robyn Manley, Stephen Michell, Jane Masoli Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor Darren L Smith, Andrew Nelson, Matthew Bashton, Greg R Young, Joshua Loh, John Allan, Mohammad A Tariole Sel Holi, Caya Black, Wen C Yew, Junn Dover, Paul Baker, Steve Liggett, Sarah Essex, Jane Greenaway, Debra Padgett, Clive Graham, Garren Scott, Edward Barton, Emma Swindells, Brendan Payne, Jennifer Collins, Yusri Taha, Gary Eltringham EPI_ISL_612146, EPI_ISL_612148, EPI_ISL_612149, EPI_ISL_612150, EPI_ISL_612151, EPI_ISL_612152, EPI_ISL_612154, EPI_ISL_612155, EPI_ISL_612157 Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Germa Clark, Wendy Smith, Manjinder Khakh, Vicki M Fleming, Michelle M Lister, Hannah Howson-Wells, Jonathan Ball, Patrick McClure, Joseph Chappell, Theocharis Tsoleridis, Nadine Holmes, Matthew Corisle, Christopher Moore, Fei Sang, Johnny
EPI_ISL_611299, EPI_ISL_611323, EPI_ISL_611338, EPI_ISL_611351, EPI_ISL_611355, EPI_ISL_611355, EPI_ISL_611414, EPI_ISL_611423, EPI_ISL_611423, EPI_ISL_612126, EPI_ISL_612127, EPI_ISL_612128, EPI_ISL_612130 EPI_ISL_612132, EPI_ISL_612133 EPI_ISL_612134 EPI_ISL_612135, EPI_ISL_612136, EPI_ISL_612137, EPI_ISL_612 see above EPI_ISL_612158	Lighthouse Lab in Glasgow Virology Department, Royal Infirmary of Edinburgh, NHS Lothian / School of Biological Sciences, University of Edinburgh / Institute of Genetics and Molecular Medicine, University of Edinburgh University of Exeter Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit Northumbria University / South Tees Hospitals NHS Foundation Trust / North Cumbria Integrated Care NHS Foundation Trust / North Tees and Hartlepool NHS Foundation Trust / Newcastle Hospitals NHS Foundation Trust 18, EPI_SL_612149,	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID- 19 Genomics UK (COG-UK) Consortium COVID-19 Genomics UK (COG-UK) Consortium	Sillibe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillibe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) McHugh M, Dewar R, Rooke S, Gallagher M, Balcaza C, O'Toole Á, Scher E, Hill V, McCrone JT, Colquhoun R, Yu X, Jackson B, Rambaut A, Williams TC, Templeton K Ben Temperton, Aaron Jeffries, Michelle Michelsen, Joanna Warwick-Dugdale, Audrey Farbos, Robyn Manley, Stephen Michell, Jane Masoli Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor Darren L Smith, Andrew Nelson, Matthew Bashton, Greg R Young, Joshua Loh, John Allan, Mohammad A Tariq, Giles S Holt, Gary Black, Wen C Yew, Lynn Dover, Paul Baker, Steve Liggett, Sarah Essex, Jane Greenaway, Debra Padgett, Clive Graham, Garren Scott, Edward Barton, Emma Swindells, Brendan Payne, Jennifer Collins, Yusri Taha, Gary Eltringham EPI_ISL_612147, EPI_ISL_612148, EPI_ISL_612149, EPI_ISL_612150, EPI_ISL_612151, EPI_ISL_612152, EPI_ISL_612153, EPI_ISL_612154, EPI_ISL_612155, EPI_ISL_612157 Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor Gemma Clark, Wendy Smith, Manjinder Khakh, Vicki M Fleming, Michelle M

	Molecular Medicine, University of Edinburgh			
EPI_ISL_612390	University of Exeter	COVID-19 Genomics UK (COG-UK) Consortium	Ben Temperton, Aaron Jeffries, Michelle Michelsen, Joanna Warwick-Dugdale, Audrey Farbos, Robyn Manley, Stephen Michell, Jane Masoli	
EPI_ISL_612464, EPI_ISL_612488, EPI_ISL_612493, EPI_ISL_612514, EPI_ISL_612516	Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit	COVID-19 Genomics UK (COG-UK) Consortium	Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor	
EPI_ISL_612530, EPI_ISL_612549, EPI_ISL_612567	Northumbria University / South Tees Hospitals NHS Foundation Trust / North Cumbria Integrated Care NHS Foundation Trust / North Tees and Hartlepool NHS Foundation Trust / Newcastle Hospitals NHS Foundation Trust	COVID-19 Genomics UK (COG-UK) Consortium	Darren L Smith, Andrew Nelson, Matthew Bashton, Greg R Young, Joshua Loh, John Allan, Mohammad A Tariq, Giles S Holt, Gary Black, Wen C Yew, Lynn Dover, Paul Baker, Steve Liggett, Sarah Essex, Jane Greenaway, Debra Padgett, Clive Graham, Garren Scott, Edward Barton, Emma Swindelis, Brendan Payne, Jennifer Collins, Yusri Taha, Gary Eltringham	
EPI_ISL_612656, EPI_ISL_612767, EPI_ISL_612821, EPI_ISL_613128	Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit	COVID-19 Genomics UK (COG-UK) Consortium	Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor	
EPI_ISL_613328, EPI_ISL_613330	Queens Medical Centre, Clinical Microbiology Department / DeepSeq Nottingham	COVID-19 Genomics UK (COG-UK) Consortium	Gemma Clark, Wendy Smith, Manjinder Khakh, Vicki M Fleming, Michelle M Lister, Hannah Howson-Wells, Jonathan Ball, Patrick McClure, Joseph Chappell, Theocharis Tsoleridis, Nadine Holmes, Matthew Carlisle, Christopher Moore, Fei Sang, Johnny Debebe, Victoria Wright, Matthew Loose	
EPI_ISL_613356, EPI_ISL_613357, EPI_ISL_613360, EPI_ISL_613370, EPI_ISL_613373, EPI_ISL_613378, EPI_ISL_613390	Virology Department, Sheffield Teaching Hospitals NHS Foundation Trust/Department of Infection, Immunity and Cardiovascular Disease, The Medical School, University of Sheffield	COVID-19 Genomics UK (COG-UK) Consortium	Thushan de Silva, Matthew Parker, Nikki Smith, Adri Angyal, Rebecca Brown, Luke Green, Rachel Tucker, Paul Parsons, Danielle Groves, Katie Johnson, Laura Carrilero, Alex Keeley, Dave Partridge, Matthew Wyles, Benjamin Lindsey, Mehmet Yavuz, Mohammad Raza, Cariad Evans	
EPI_ISL_613527, EPI_ISL_613528, EPI_ISL_613531, EPI_ISL_613532	Public Health Laboratory - Infectious Disease Lab, Minnesota Department of Health Infectious Disease Laboratory Submission Group	Minnesota Department of Health, Public Health Laboratory	Plumb,M., Garfin,J., Lorentz,A., Wang,X.	
EPI_ISL_613583, EPI_ISL_613633	Respiratory Virus Unit, Microbiology Services Colindale, Public Health England	Respiratory Virus Unit, Microbiology Services Colindale, Public Health England	PHE Covid Sequencing Team	
EPI_ISL_613855, EPI_ISL_613865, EPI_ISL_613868	Florida Bureau of Public Health Laboratories	Florida Bureau of Public Health Laboratories	Sarah Schmedes, Jason Blanton	
EPI_ISL_614073, EPI_ISL_614074, EPI_ISL_614094, EPI_ISL_614096, EPI_ISL_614097, EPI_ISL_614098, EPI_ISL_614099	Virginia DCLS	Virginia DCLS	Virginia DCLS	
	14175, EPI_ISL_614177, EPI_ISL_614179, EPI_ISL_614216, EPI_ISL_614222, EPI_ISL_			
see above	Michigan Department of Health and Human Services, Bureau of Laboratories	Michigan Department of Health and Human Services, Bureau of Laboratories	Blankenship HM, Riner D, Soehnlen MK	
EPI_ISL_614903, EPI_ISL_614914, EPI_ISL_614915, EPI_ISL_6 see above	.14923, EPI_ISL_614928, EPI_ISL_614930, EPI_ISL_614932, EPI_ISL_614941, EPI_ISL_ Viollier AG	Department of Biosystems Science and	Christian Beisel, Sarah Nadeau, Ivan Topolsky, Pedro Ferreira, Philipp Jablonski, Susana Posada-Céspedes, Tobias Schär, Ina Nissen, Natascha Santacroce, Elodie Burcklen, Christiane Beckmann, Maurice Redondo,	
EPI_ISL_614987	Microbiology, Department of Pathology, St. Bernard's Hospital, Gibraltar Health	Engineering, ETH Zürich Respiratory Virus Unit, Microbiology	Olivier Kobel, Christoph Noppen, Sophie Seidel, Noemie Santamaria de Souza, Chaoran Chen, Niko Beerenwinkel, Tanja Stadler PHE Covid Sequencing Team, Dr Nicholas Cortes (Gibraltar), Charlotte Gillborn-Jones (Gibraltar)	
EPI ISL 616951, EPI ISL 616952, EPI ISL 616953, EPI ISL 6	Authority 16955, EPI ISL 616976, EPI ISL 616977, EPI ISL 616978, EPI ISL 616979, EPI ISL	Services Colindale, Public Health England 616980, EPI ISL 616981, EPI ISL 616982,	EPI ISL 616983, EPI ISL 616984, EPI ISL 616985, EPI ISL 616986, EPI ISL 616987, EPI ISL 616988, EPI ISL 616988, EPI ISL 616999, EPI ISL 616991, EPI ISL 616992, EPI ISL 616993, EPI ISL 616994, EPI ISL 616995,	
EP IS. G1999. EP IS. G1999. EP IS. G1999. EP IS. G1700. EP				
see above	Department of Virus and Microbiological Special Diagnostics, Statens Serum Institut, Denmark	Albertsen lab, Department of Chemistry and Bioscience, Aalborg University, Denmark	Danish Covid-19 Genome Consortia	
EPI_ISL_622765	SA Pathology	SA Pathology	Lex Leong, Julien Soubrier, Chuan Kok Lim, Song Gao, Mark Turra, Karin Kassahn, Ivan Bastian, Geoff Higgins	
EPI_ISL_622803, EPI_ISL_622814	LabPLUS	Institute of Environmental Science and Research (ESR)	Xiaoyun Ren, Matt Storey, Nikki Freed, Muhammad Faisal, Jing Wang, Hermes Perez, Anja Werno, Antje van der Linden, Arlo Upton, Chris Mansell, David Hammer, Dragana Drinkovic, Gary McAuliffe, Hana Sofia Andersson, James Ussher, Jill Sherwood, Josh Freeman, Juliar Howard, Juliet Elvy, Mary DeAlmeida, Matt Blakston, Matthew Rogers, Max Bloomfield, Michael Addidle, Michelle Balm, Sally Roberts, Sarah Jefferies, Sharmini Muttaiyah, Susan Morpeth, Susan Taylor, Timothy Blackmore, Vani Sathyendran, Veronica Playle, Virginia Hope, Erasmus Smit, Lauren Jelly, Olin Silander, Joep de Ligt	
EPI_ISL_622817, EPI_ISL_622820, EPI_ISL_622831	Middlemore Hospital	Institute of Environmental Science and Research (ESR)	Xiaoyun Ren, Matt Storey, Nikki Freed, Muhammad Faisal, Jing Wang, Hermes Perez, Anja Werno, Antje van der Linden, Arlo Upton, Chris Mansell, David Hammer, Dragana Drinkovic, Gary McAuliffe, Hana Sofia Andersson, James Ussher, Jill Sherwood, Josh Freeman, Julia Howard, Juliet Elvy, Mary DeAlmeida, Matt Blakiston, Matthew Rogers, Max Bloomfield, Michael Addidle, Michael Balim, Sally Roberts, Sarah Jefferies, Sharmini Muttaiyah, Susan Morpeth, Susan Taylor, Timothy Blackmore, Vani Sathyendran, Veronica Playle, Virginia Hope, Erasmus Smit, Lauren Jelly, Olin Silander, Joep de Ligt	
EPI_ISL_622845, EPI_ISL_622846, EPI_ISL_622847, EPI_ISL_622852, EPI_ISL_622854, EPI_ISL_622859, EPI_ISL_622872, EPI_ISL_622873, EPI_ISL_622874, EPI_ISL_622875	Respiratory Virus Unit, Microbiology Services Colindale, Public Health England	Respiratory Virus Unit, Microbiology Services Colindale, Public Health England	PHE Covid Sequencing Team	
EPI_ISL_623179	Utah Public Health Laboratory	Utah Public Health Laboratory	Erin Young, Kelly Oakeson	
EPI_ISL_623217, EPI_ISL_623231, EPI_ISL_623254, EPI_ISL_623294, EPI_ISL_623305	Lighthouse Lab in Milton Keynes	19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623323, EPI_ISL_623330	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623362, EPI_ISL_623367	Lighthouse Lab in Milton Keynes	19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623398, EPI_ISL_623427	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623465, EPI_ISL_623472, EPI_ISL_623479, EPI_ISL_623487, EPI_ISL_623505	Lighthouse Lab in Milton Keynes	19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, lan Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623520		19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623529, EPI_ISL_623536	Lighthouse Lab in Milton Keynes	19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623557	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623565	Lighthouse Lab in Milton Keynes	19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623572, EPI_ISL_623619	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623628, EPI_ISL_623642	Lighthouse Lab in Milton Keynes	19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623645, EPI_ISL_623651	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	
EPI_ISL_623684	Lighthouse Lab in Milton Keynes	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)	

EPI_ISL_623688	Lighthouse Lab in Cambridge	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.ki/kcovid-team)
EPI_ISL_623705, EPI_ISL_623707, EPI_ISL_623745	Lighthouse Lab in Milton Keynes	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_623754	Lighthouse Lab in Cambridge	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_623755, EPI_ISL_623760, EPI_ISL_623778	Lighthouse Lab in Milton Keynes		The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_623790, EPI_ISL_623791, EPI_ISL_623802	Lighthouse Lab in Cambridge		Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_623805, EPI_ISL_623817	Lighthouse Lab in Milton Keynes		The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_623832	Lighthouse Lab in Cambridge		Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan House, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Hotto, Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_623835, EPI_ISL_623836	Lighthouse Lab in Milton Keynes		The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_623854	Lighthouse Lab in Cambridge		Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Link, Williams (N. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_623871, EPI_ISL_624003	Lighthouse Lab in Alderley Park	Wellcome Sanger Institute for the COVID-	
EPI_ISL_624010	Lighthouse Lab in Glasgow	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID-	Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia
EPI_ISL_624040	Lighthouse Lab in Alderley Park		Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John
EPI_ISL_624067	Lighthouse Lab in Glasgow	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID-	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia
EPI_ISL_624068, EPI_ISL_624106, EPI_ISL_624121,	Lighthouse Lab in Alderley Park		Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John
EPI_ISL_624150 EPI_ISL_624176	Lighthouse Lab in Glasgow	19 Genomics UK Consortium Wellcome Sanger Institute for the COVID-	Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia
		19 Genomics UK Consortium	Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team) EPI ISL 624535, EPI ISL 624544, EPI ISL 624556, EPI ISL 624615, EPI ISL 624667, EPI ISL 624694, EPI ISL 624698, EPI ISL 624721, EPI ISL 624737, EPI ISL 624755, EPI ISL 624880, EPI ISL 624891, EPI ISL 624894,
EPI_ISL_624929, EPI_ISL_624931, EPI_ISL_624962, EPI_ISL_625	5073, EPI_ISL_625088, EPI_ISL_625100, EPI_ISL_625107, EPI_ISL_625155, EPI_ISI	L_625178, EPI_ISL_625204, EPI_ISL_625205,	EPI_ISL_625208, EPI_ISL_625236, EPI_ISL_625241, EPI_ISL_625260
see above	Lighthouse Lab in Alderley Park	19 Genomics UK Consortium	Jacquelyn Wynn, Mairead Hyland, The Lighthouse Lab in Alderley Park and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_625306, EPI_ISL_625307	Lighthouse Lab in Cambridge	19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_625347, EPI_ISL_625373, EPI_ISL_625379, EPI_ISL_625384, EPI_ISL_625386, EPI_ISL_625390	Lighthouse Lab in Glasgow	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Harper VanSteenhouse, Yumi Kasai, David Gray, Carol Clugston, Anna Dominiczak and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_625413, EPI_ISL_625415	Lighthouse Lab in Milton Keynes	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	The Lighthouse Lab in Milton Keynes and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_625439, EPI_ISL_625441, EPI_ISL_625449, EPI_ISL_625452	Lighthouse Lab in Cambridge	Wellcome Sanger Institute for the COVID- 19 Genomics UK Consortium	Rob Howes, The Lighthouse Lab in Cambridge and Alex Alderton, Roberto Amato, Sonia Goncalves, Ewan Harrison, David K. Jackson, Ian Johnston, Dominic Kwiatkowski, Cordelia Langford, John Sillitoe on behalf of the Wellcome Sanger Institute COVID-19 Surveillance Team (http://www.sanger.ac.uk/covid-team)
EPI_ISL_625602, EPI_ISL_625607, EPI_ISL_625608, EPI_ISL_625610	Santa Clara County Public Health Laboratory	Chan-Zuckerberg Biohub	CZB Cliahub Consortium
EPI_ISL_625612, EPI_ISL_625613, EPI_ISL_625617, EPI_ISL_625619	Alameda County Public Health Lab	Chan-Zuckerberg Biohub	CZB Cliahub Consortium
EPI_ISL_625665, EPI_ISL_625666	UCSF Clinical Microbiology Laboratory	Chan-Zuckerberg Biohub	CZB Cliahub Consortium
EPI ISL 625733, EPI ISL 625734, EPI ISL 625735, EPI ISL 62: FI ISL 625777, EPI ISL 625778, EPI ISL 625779, EPI ISL 62: EPI ISL 625801, EPI ISL 625802, EPI ISL 625803, EPI ISL 62: EPI ISL 625802, EPI ISL 625802, EPI ISL 625803, EPI ISL 62: EPI ISL 625936, EPI ISL 625958,	5736, EPI_ISL_625757, EPI_ISL_625758, EPI_ISL_625759, EPI_ISL_625760, EPI_ISI 5780, EPI_ISL_625781, EPI_ISL_625782, EPI_ISL_625783, EPI_ISL_625784, EPI_ISL 5804, EPI_ISL_625805, EPI_ISL_625806, EPI_ISL_625807, EPI_ISL_625809, EPI_ISL 5831, EPI_ISL_625832, EPI_ISL_625833, EPI_ISL_625834, EPI_ISL_625835, EPI_ISL	L_625761, EPI_ISL_625762, EPI_ISL_625763, L_625785, EPI_ISL_625786, EPI_ISL_625787, L_625810, EPI_ISL_625811, EPI_ISL_625812, L_625836, EPI_ISL_625837, EPI_ISL_625838,	CZB Cliahub Consortium CZB CIA CZB
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EPI_ISL_625733, EPI_ISL_625734, EPI_ISL_625735, EPI_ISL_62: EPI_ISL_625777, EPI_ISL_625778, EPI_ISL_625779, EPI_ISL_62: EPI_ISL_625801, EPI_ISL_625802, EPI_ISL_625803, EPI_ISL_62: EPI_ISL_625802, EPI_ISL_625822, EPI_ISL_625803, EPI_ISL_62: EPI_ISL_625803, EPI_ISL_625823, EPI_ISL_625803, EPI_ISL_62: EPI_ISL_626203, EPI_ISL_626204, EPI_ISL_626210 see above EPI_ISL_626255, EPI_ISL_626259, EPI_ISL_626260, EPI_ISL_62: EPI_ISL_626303, EPI_ISL_626306, EPI_ISL_626315, EPI_ISL_626 EPI_ISL_626592, EPI_ISL_626594, EPI_ISL_626596, EPI_ISL_626 EPI_ISL_626652 see above EPI_ISL_626632 EPI_ISL_627209 EPI_ISL_627209	\$736. EP ISL 625757, EP ISL 625758, EP ISL 625759, EP ISL 625760, EP ISL \$736. EP ISL 625781, EP ISL 625782, EP ISL 625783, EP ISL 625784, EP ISL \$736. EP ISL 62581, EP ISL 625806, EP ISL 625807, EP ISL 625807, EP ISL \$736. EP ISL 625805, EP ISL 625806, EP ISL 625807, EP ISL 625807, EP ISL \$738. EP ISL 625832, EP ISL 625803, EP ISL 625807, EP ISL \$736. EP ISL 625832, EP ISL 625994, EP ISL 625899, EP ISL \$736. EP ISL 625994, EP ISL 625994, EP ISL 625999, EP ISL 625999, EP ISL 625999, EP ISL 625994, EP ISL 626372, EP ISL 6263	L_625761, EPI_ISL_625762, EPI_ISL_625763, L_623785, EPI_ISL_625786, EPI_ISL_625787, L_623810, EPI_ISL_625811, EPI_ISL_625812, L_623836, EPI_ISL_625831, EPI_ISL_625831, L_623836, EPI_ISL_626028, EPI_ISL_626024, Albertsen lab, Department of Chemistry and Bioscience, Aalborg University, Denmark L_626274, EPI_ISL_626278, EPI_ISL_626276, L_626333 GIGA Medical Genomics L_626607, EPI_ISL_6266278, EPI_ISL_626609, State Veterinary Institute Prague National Public Health Laboratory, National Centre for Infectious Diseases COVID-19 Genomics UK (COG-UK) Consortium COVID-19 Genomics UK (COG-UK) CONSORTIUM COVID-19 Genomics UK (COG-UK) CONSORTIUM COVID-19 Genomics UK (COG-UK)	EPI_ISL_625765, EPI_ISL_625765, EPI_ISL_625766, EPI_ISL_62576, EPI_ISL_625766, EPI_ISL_625766, EPI_ISL_625766, EPI_ISL_62676,
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EPI_ISL_627379, EPI_ISL_627417	West of Scotland Specialist Virology Centre, NHSGGC / MRC-University of Glasgow Centre for Virus Research	COVID-19 Genomics UK (COG-UK) Consortium	Ana da Silva Filipe, Natasha Johnson, Kathy Smollett, Daniel Mair, Stephen Carmichael, Lily Tong, Jenna Nichols, Elihu Aranday-Cortes, Kyriaki Nomikou; Sarah McDonald, Marc Niebel, Patawee Asamaphan; Richard Orton, Joseph Hughes, Sreenu Vattipally, David L Robertson; Alasdair MacLean, Rory Gunson; Kathy Li, Igor Starinskij, Natasha Jesudason, Rajiv Shah, James Shepherd, Antonia Ho, Emma Thomson
EPI_ISL_627461, EPI_ISL_627478	University College London, Great Ormond Street Hospital for Children NHS Foundation Trust, Imperial College Healthcare NHS Trust	COVID-19 Genomics UK (COG-UK) Consortium	Sergi Castellano, Rachel Williams, Mark Kristiansen, Paola Resende Silva, Sunando Roy, Tony Brooks, Helena Tutill, Paola Niola, Patricia Dyal, Charlotte Williams, Leysa Forrest, Yasmin Panchbhaya, Jacqueline Findlay, Samuel Weeks, Julianne Brown, Kathryn Harris, Paul Randell, James Price, Alison Holmes, Judith Breuer
EPI_ISL_627488, EPI_ISL_627490	Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit	COVID-19 Genomics UK (COG-UK) Consortium	Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor
EPI_ISL_627505	Virology Department, Sheffield Teaching Hospitals NHS Foundation Trust/Department of Infection, Immunity and Cardiovascular Disease, The Medical School, University of Sheffield	COVID-19 Genomics UK (COG-UK) Consortium	Thushan de Silva, Matthew Parker, Nikki Smith, Adri Angyal, Rebecca Brown, Luke Green, Rachel Tucker, Paul Parsons, Danielle Groves, Katie Johnson, Laura Carrilero, Alex Keeley, Dave Partridge, Matthew Wyles, Benjamin Lindsey, Mehmet Yavuz, Mohammad Raza, Cariad Evans
EPI_ISL_627537	Regional Virus Laboratory, Belfast Health and Social Care Trust	COVID-19 Genomics UK (COG-UK) Consortium	Conall McCaughey, James McKenna, Tanya Curran, Susan Feeney, Alison Watt, Ciara Cox, Mairead Connor, Zoltan Molnar, David Simpson, Derek Fairley
EPI_ISL_627570, EPI_ISL_627615	Quadram Institute Bioscience	COVID-19 Genomics UK (COG-UK) Consortium	Dave J. Baker, Gemma L. Kay, Alp Aydin, Thanh Le-Viet, Steven Rudder, Ana P. Tedim, Anastasia Kolyva, Maria Diaz, Leonardo de Oliveira Martins, Nabil-Fareed Alikhan, Lizzie Meadows, Rachael Stanley, Ngozi Elumogo, Muhammed Yasir, Nicholas M. Thomson, Alexander J Trotter, Rachel Gilroy, Samuel Bloomfield, Claire Stuart, Andrew Bell, Reenesh Prakash, Samir Dervisevic, Alison E. Mather, John Wain, Mark Webber, Andrew J. Page, Justin O'Grady
EPI_ISL_627857, EPI_ISL_627956	Wales Specialist Virology Centre Sequencing lab: Pathogen Genomics Unit	COVID-19 Genomics UK (COG-UK) Consortium	Catherine Moore, Johnathan Evans, Laura Gifford, Malorie Perry, Simon Cottrell, Angela Marchbank, Alec Birchley, Alexander Adams, Amy Gaskin, Bree Gatica-Wilcox, Jason Coombes, Joel Southgate, Lauren Gilbert, Lee Graham, Nicole Pacchiarini, Sara Kumziene-Summerhayes, Sarah Taylor, Sophie Jones, Sara Rey, Matthew Bull, Joanne Watkins, Sally Corden, Tom Connor
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see above	Oxford Viromics, NDM, University of Oxford; Oxford University Hospitals; Basingstoke and North Hampshire Hospital	COVID-19 Genomics UK (COG-UK) Consortium	Tanya Golubchik, David Bonsall, George Macintyre, Amy Trebes, Mariateresa de Cesare, Catrin Moore, Alex Mobbs, Anita Justice, Robert Shaw, Monique Andersson, Timothy Peto, Emma Wise, Nathan Moore, Jessica Lynch, Nick Cortes, Matilde Mori, Stephen Kidd, David Buck, John Todd, Christophe Fraser
EPI_ISL_628810, EPI_ISL_628826, EPI_ISL_628829, EPI_ISL_628833, EPI_ISL_628849, EPI_ISL_628859	University of Michigan Clinical Microbiology Laboratory	Lauring Lab, University of Michigan, Department of Microbiology and Immunology	Valesano
EPI_ISL_628932, EPI_ISL_628938, EPI_ISL_628954, EPI_ISL_628955, EPI_ISL_628961	Utah Public Health Laboratory	Utah Public Health Laboratory	Erin Young, Kelly Oakeson