

### **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: BEAST 2 XML file template (with sequence data removed)

File Name: Supplementary Data 2

Description: GISAID Acknowledgements for Omicron BA.1 genomes

File Name: Supplementary Data 3

Description: GISAID Acknowledgements for Omicron BA.2.12.1 genomes

File Name: Supplementary Data 4

Description: GISAID Acknowledgements for Omicron BA.2 genomes

File Name: Supplementary Data 5

Description: GISAID Acknowledgements for Omicron BA.4 genomes

File Name: Supplementary Data 6

Description: GISAID Acknowledgements for Omicron BA.5 genomes