

chikungunya sample, did clinical diagnosis and received local approvals. S.B. and J.B. performed molecular diagnostics and curated Zika and Chikungunya control material. N.D.G, S.T.P., I.M.C., K.G., G.O., R.R-S., T.F.R., N.A.B., J.J.G, M.G., S.H. and A.B. performed the experiments. All other authors tested the protocol and provided feedback. All authors have read and approved the contents of the manuscript.

COMPETING FINANCIAL INTERESTS

J.Q., N.J.L. and J.T.S have received expenses and/or honoraria to speak at Oxford Nanopore Technologies and Illumina events. N.J.L., M.L. and J.T.S. have received free of charge reagents from Oxford Nanopore Technologies as members of the early access group. N.J.L. has received free of charge reagents from Oxford Nanopore Technologies in support of this project. N.J.L. and M.C. have received free of charge reagents from Oxford Nanopore Technologies to support previous work on Ebola virus. J.T.S. has received research funding from Oxford Nanopore Technologies.

SUPPLEMENTARY INFORMATION

Table 1 | Zika virus “ZikaAsian” scheme used by ZiBRA project generated by the Primal Scheme software ¹⁵.

Name	Sequence	Pool
ZIKA_400_1_LEFT	GACAGTTCGAGTTTGAAGCGAAAG	1
ZIKA_400_1_RIGHT	AGTATGCACTCCCACGTCTAGT	1
ZIKA_400_2_LEFT	AAGAAAGATCTGGCTGCCATGC	2
ZIKA_400_2_RIGHT	TGATTCCAACCAGGTTTGCAC	2
ZIKA_400_3_LEFT	AGATGACGTCGATTGTTGGTGC	1
ZIKA_400_3_RIGHT	TACGGTGACACAACCTCCATGT	1
ZIKA_400_4_LEFT	TCAGGTGCATAGGAGTCAGCAA	2
ZIKA_400_4_RIGHT	GGAGCCATGAACTGACAGCATT	2
ZIKA_400_5_LEFT	AGAACGTTAGTGGACAGAGGCT	1
ZIKA_400_5_RIGHT	TGTGCGTCCTTGAACCTACCA	1
ZIKA_400_6_LEFT	TTGATTGTGAACCGAGGACAGG	2
ZIKA_400_6_RIGHT	CCATCTGTCCCTGCGTACTGTA	2
ZIKA_400_7_LEFT	TGAAGGGCGTGCATACTCCTT	1
ZIKA_400_7_RIGHT	CGCCTCCAACCTGATCCAAAGTC	1
ZIKA_400_8_LEFT	GGGAGAAGAAGATCACCCACCA	2
ZIKA_400_8_RIGHT	TTGACTGCTGCTGCCAATCTAC	2
ZIKA_400_9_LEFT	GCCTTAGGGGGAGTGTGATCT	1
ZIKA_400_9_RIGHT	GAGTGGGCATTCTTCAGTGTG	1
ZIKA_400_10_LEFT	ACGGTCGTTGTGGGATCTGTAA	2
ZIKA_400_10_RIGHT	GTGGGACTTTGGCCATTACAT	2

ZIKA_400_11_LEFT	CAGCCGTTATTGGAACAGCTGT	1
ZIKA_400_11_RIGHT	CCTGGGCCTTATCTCCATTCCA	1
ZIKA_400_12_LEFT	CACTAAGGTCCACGTGGAGGAA	2
ZIKA_400_12_RIGHT	TATCAGCGCCAGATGAGCTACA	2
ZIKA_400_13_LEFT	TGGCAGTGCTGGTAGCTATGAT	1
ZIKA_400_13_RIGHT	AGAGAGAGGAGCATAAACCCCC	1
ZIKA_400_14_LEFT	CAATGGTTTTGCTTTGGCCTGG	2
ZIKA_400_14_RIGHT	TTTCCCATGTGATGTCACCTGC	2
ZIKA_400_15_LEFT	CCCTAGCGAAGTACTCACAGCT	1
ZIKA_400_15_RIGHT	TACACTCCATCTGTGGTCTCCC	1
ZIKA_400_16_LEFT	GTGGCATGAACCCAATAGCCAT	2
ZIKA_400_16_RIGHT	GCTCCAATGTCCCCATCCTTTG	2
ZIKA_400_17_LEFT	GTGGTCCATGGAAGCTAGATGC	1
ZIKA_400_17_RIGHT	CCTTAAGGGCCTCCTCATT	1
ZIKA_400_18_LEFT	CTGTTGAGTGCTTCGAGCCTTC	2
ZIKA_400_18_RIGHT	TGGTGAGTTGGAGTCCGGAAAT	2
ZIKA_400_19_LEFT	TATGGATGAGGCCCACTCACA	1
ZIKA_400_19_RIGHT	GCCATCAAGTATGACCGGCTTT	1
ZIKA_400_20_LEFT	GGCTGGAAAACGGGTCATACAG	2
ZIKA_400_20_RIGHT	CCTTTGCTCCGTCCTAAGCTTG	2
ZIKA_400_21_LEFT	AGAGACTGACGAAGACCATGCA	1
ZIKA_400_21_RIGHT	CTCCAAAAGCCGCTCCTCTTTT	1
ZIKA_400_22_LEFT	TGGACCAGACACGGAGAGAAAA	2
ZIKA_400_22_RIGHT	ATTCTGGCTGGCTCAATTTCCG	2
ZIKA_400_23_LEFT	CGTCTTGATGAGGAACAAGGGC	1
ZIKA_400_23_RIGHT	AAGTGGTCACTGCATGTTGGAC	1
ZIKA_400_24_LEFT	TAATGGGAAGGAGAGAGGGG	2
ZIKA_400_24_RIGHT	TCTCCTTGGGGGTCAATTGT	2
ZIKA_400_25_LEFT	CCCTGACCCTAATAGTGGCCAT	1
ZIKA_400_25_RIGHT	CCTTCCATTTCTCTCCAGGGT	1
ZIKA_400_26_LEFT	ACTGGAACCTCTACAGCCAC	2
ZIKA_400_26_RIGHT	ACCAGGGCCTCCTTTTGTGTAT	2
ZIKA_400_27_LEFT	AGTGCAAAGCTGAGATGGTTGG	1
ZIKA_400_27_RIGHT	ATGTGTAGAGTTGCGGGAGAGT	1
ZIKA_400_28_LEFT	GGTGGGGGATTGGCTTGA AAAA	2
ZIKA_400_28_RIGHT	GGGCCTCATAGCTTCCATGGTA	2
ZIKA_400_29_LEFT	AGGATGTGAATCTCGGCTCTGG	1

ZIKA_400_29_RIGHT	ATGCTGCATTGCTACGAACCTT	1
ZIKA_400_30_LEFT	AAAAGTGGACACTAGGGTGCCA	2
ZIKA_400_30_RIGHT	TAATCCCAGCCCTTCAACACCA	2
ZIKA_400_31_LEFT	ACAAGGGGAATTTGGAAAGGCC	1
ZIKA_400_31_RIGHT	CGTAAGTGACAACCTGTCCGCT	1
ZIKA_400_32_LEFT	AAATGGAAAAAGGGCACAGGGC	2
ZIKA_400_32_RIGHT	TGTCCCATCCAGTTGAGGGTTT	2
ZIKA_400_33_LEFT	CAAACGAATGGCAGTCAGTGGA	1
ZIKA_400_33_RIGHT	ATCCACACTCTGTTCCACACCA	1
ZIKA_400_34_LEFT	ATTTCCACAGAAGGGACCTCCG	2
ZIKA_400_34_RIGHT	TGACTAGCAGGCCTGACAACAT	2
ZIKA_400_35_LEFT	ACCACCTGGGCTGAGAACATTA	1
ZIKA_400_35_RIGHT	ACCACTAGTCCCTCTTCTGGAG	1

Table 2 | Chikungunya virus “ChikAsiaECSA” 400 nt scheme

Name	Sequence	Pool
CHIK_400_1_LEFT_3	CTTTTTGAAGGCCCTGCAACGT	1
CHIK_400_1_RIGHT_3	ACGGCCATCACCTCTTGTAAGT	1
CHIK_400_2_LEFT_0	TGTCGGACAGGAAGTACCACTG	2
CHIK_400_2_RIGHT_0	CTCATCCGCCCAATTTGTCGAG	2
CHIK_400_3_LEFT_0	GTA CTGGGTAGGGTTCGACACA	1
CHIK_400_3_RIGHT_0	CACACGAAACCACTGTGTCACA	1
CHIK_400_4_LEFT_4	TCGGTGTTCATCTAAAGGGCA	2
CHIK_400_4_RIGHT_4	CTTCATGGTGTTCGTGTTCCGT	2
CHIK_400_5_LEFT_0	GGTGGGGCTGAACCAGAGAATA	1
CHIK_400_5_RIGHT_0	TACAAAGCTGTGAATTCGGCC	1
CHIK_400_6_LEFT_4	AAGCAGAAAACACACGGTCT	2
CHIK_400_6_RIGHT_4	GCGCCTCTCGGAGTCTTATTA	2
CHIK_400_7_LEFT_0	TACAGGCAGCACAGGAAGATGT	1
CHIK_400_7_RIGHT_0	TGGAAGTCTTCGGGCGAAATTG	1
CHIK_400_8_LEFT_1	GGAGCAAGTGAAGACGTGTACG	2
CHIK_400_8_RIGHT_1	TATATGGACAAGCGGGGCGAAT	2
CHIK_400_9_LEFT_0	TGCAAGAAGGAAGAAGCTGCAG	1
CHIK_400_9_RIGHT_0	AAGGCGATCAAGGCAAGTAACG	1
CHIK_400_10_LEFT_0	ATCTGCACGTACGGTTGATTCG	2

CHIK_400_10_RIGHT_0	GGTTTTGTTGAGCCCGTAGTGT	2
CHIK_400_11_LEFT_0	GGCAAATGCGCACTACGAATG	1
CHIK_400_11_RIGHT_0	CCTTCCGTACGCGTTAGGAGTA	1
CHIK_400_12_LEFT_1	AGGAGTTTACGCAGTTAGGCAAA	2
CHIK_400_12_RIGHT_1	TTCATTCAAGGGCTACTTCGGGT	2
CHIK_400_13_LEFT_0	TGGTCCCTATCCTCGAAACAGC	1
CHIK_400_13_RIGHT_0	TCCTGGTAGTCACGCAGATCTG	1
CHIK_400_14_LEFT_0	TGAGGCAGCGTCCATTCTAGAA	2
CHIK_400_14_RIGHT_0	ATACCTACCAAGTGTGCGGGT	2
CHIK_400_15_LEFT_4	ACCTTGCACTGCCTACTAAGAGA	1
CHIK_400_15_RIGHT_4	ACATGGTGGTTTCAATGCTCTGG	1
CHIK_400_16_LEFT_0	TCAGAGCATACGGTTACGCAGA	2
CHIK_400_16_RIGHT_0	TTTGCGGTTCCTACTGGTGTTG	2
CHIK_400_17_LEFT_0	GACGGTGGTTGCAAGGCAGTAT	1
CHIK_400_17_RIGHT_0	TCCATGGCTGTAAAGAGGTGGT	1
CHIK_400_18_LEFT_0	ACCTCTCTCTCCACAGGTGTA	2
CHIK_400_18_RIGHT_0	GCCTCTATTTGCTTTGGCCACA	2
CHIK_400_19_LEFT_0	AAGGGACACGTTTTCCACAGAC	1
CHIK_400_19_RIGHT_0	GGAGCATTTGACTTTTTGCACTCC	1
CHIK_400_20_LEFT_0	CGACTTCGCATGAACCATGTCA	2
CHIK_400_20_RIGHT_0	GTATGTATCGCCCCGTCGTCTA	2
CHIK_400_21_LEFT_0	AGTTTGATCTAAGCGCCGATGG	1
CHIK_400_21_RIGHT_0	AAATGTGATGGGGAACGTCTCG	1
CHIK_400_22_LEFT_0	CGCGTGACACAGCTATTCCTT	2
CHIK_400_22_RIGHT_0	TGGCGTACCGACTTCTGTTGTA	2
CHIK_400_23_LEFT_0	ACACGGACGACGAGTTATGACT	1
CHIK_400_23_RIGHT_0	GACAATCGGACGTTGATCGGAG	1
CHIK_400_24_LEFT_0	TAATGGCAGAGACCCCGAAAGT	2
CHIK_400_24_RIGHT_0	TGTGTTCTGGAATGGGGAAGGT	2
CHIK_400_25_LEFT_0	CGAGCGACATTCAATCCGTCOA	1
CHIK_400_25_RIGHT_0	CGGCAGCAGATTATGGGTCTT	1
CHIK_400_26_LEFT_3	GAAGAATTTGCTGCCAGCCCTA	2
CHIK_400_26_RIGHT_3	GTGCGGCTATAATGGCATCGAA	2
CHIK_400_27_LEFT_0	TTAGGAGATTGAACGCCGTCTT	1
CHIK_400_27_RIGHT_0	GTCAGACGATCTTCCAACACCC	1
CHIK_400_28_LEFT_2	GACAGGTACGCGCTTCAAGTTC	2
CHIK_400_28_RIGHT_2	CGCTAACGGTTTGCCAGTTTA	2

CHIK_400_29_LEFT_0	AGCTCCCTACTTTTGTGGAGGG	1
CHIK_400_29_RIGHT_0	GACCGCGTACAAGGTTATGAC	1
CHIK_400_30_LEFT_0	TAATGTCCATGGCCACCTTTGC	2
CHIK_400_30_RIGHT_0	TATTCTTCCGATTCTTGCGCGG	2
CHIK_400_31_LEFT_0	CAACTTGCCCAGCTGATCTCAG	1
CHIK_400_31_RIGHT_0	ATCGATGGTCCCCTTACGTGT	1
CHIK_400_32_LEFT_0	TAAGGTAACAGGTTACGCGTGC	2
CHIK_400_32_RIGHT_0	TACGGGCTCCTTCATTAGCTCC	2
CHIK_400_33_LEFT_2	GACCGATCTTCGACAACAAGGG	1
CHIK_400_33_RIGHT_2	GCGTCGGGGAGAACATGTTAAG	1
CHIK_400_34_LEFT_0	GAGAAAACCTTGCGCATGCTTG	2
CHIK_400_34_RIGHT_0	CTGCTGGCATGTGATTGTCCAT	2
CHIK_400_35_LEFT_0	CCAGGTTTCTTGCAAATCGGA	1
CHIK_400_35_RIGHT_0	GTACGTGCTGCAAGGTAGTTCC	1
CHIK_400_36_LEFT_1	CATGTACGCACCCATTTACCA	2
CHIK_400_36_RIGHT_1	GGTCCCGAATTCAGCATTACG	2
CHIK_400_37_LEFT_0	CTGCAAGGTGCGATCAATGCCAT	1
CHIK_400_37_RIGHT_0	TCATTGTTACCCACGTGACCT	1
CHIK_400_38_LEFT_0	AGTGGGTGACGCATAAGAAGGA	2
CHIK_400_38_RIGHT_0	TGGTGTCAGTTCGTACGGTGTA	2
CHIK_400_39_LEFT_0	ATACTCCTGTCGATGGTGGGTG	1
CHIK_400_39_RIGHT_0	CGGGATCACTGTTACGTGTTCCG	1
CHIK_400_40_LEFT_0	TTTTTAGCCGTA CTGAGCGTCG	2
CHIK_400_40_RIGHT_0	ATTTTCGGTGTCGCAGAAGCAG	2
CHIK_400_41_LEFT_0	GCGGTACAGCAGAGTGTAAGGA	1
CHIK_400_41_RIGHT_0	GTCGCCTTTGTACACCACGATT	1
CHIK_400_42_LEFT_0	CCATGCCGTACAGTTAAGGAC	2
CHIK_400_42_RIGHT_0	AGTTCATCGCTCTTACGGGTT	2
CHIK_400_43_LEFT_0	ATTGGCTAAAAGAACGAGGGGC	1
CHIK_400_43_RIGHT_0	TTCCGAATAGTGACGGCGTTA	1
CHIK_400_44_LEFT_0	GCACCCATTCTCAGACTTTGG	2
CHIK_400_44_RIGHT_0	CCTGCTAAACGACACGCATAGC	2