Multidrug-Resistant IncA/C Plasmid in Vibrio cholerae from Haiti

Technical Appendix

Technical Appendix Figure. Comparative analysis of plasmid p2012EL-2176 to plasmid pAR060302. The genome was sequenced by using NexteraXT library kits, paired-end, 150-bp reads using a MiSeq (Illumina, San Diego, CA, USA) (GenBank accession nos. CP007634 and CP007635) and on 4 SMRT cells on the Pacific Biosciences RS (Pacific Biosciences, Menlo Park, CA, USA) and assembled with the HGAP1 protocol (P_PreAssembler for error correction, Celera Assembler for assembly of corrected reads). A 35× long-read cutoff (8,855 bp) was used in the P_PreAssembler, and the longest (15.3×) of the corrected reads were assembled by Celera. The assembly yielded 1 plasmid contig (GenBank accession
no. CP007636). A BLAST comparison was performed by using BLASTN with a cutoff value of 70% identity and pAR060302 as the reference sequence. The green circle shows the regions of p2012EL-2176 with identity to pAR060302. The blue inserts show regions of p2012EL-2176 containing antimicrobial-drug resistance (AR) genes. The circular plot was generated by using BLAST Ring Image Generator (BRIG) software (1).

Additional methods:

The conjugation experiment used *V. cholerae* 2012EL-2176 as the donor and *E. coli* J53 (sodium azide R) as the recipient (2).

The 3 resistance regions on IncA/C-cmy plasmids are described in this publication (3).

References

