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ASIA EDITION

OpGen, Univ of California develop genetic maps

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Singapore: US-based OpGen has entered into a scientific and technical partnership with University of California Davis (UC Davis), in cooperation with the FDA supported 100K Genome Project to create high resolution microbial genetic maps.

The 100K Genome Project is a collaboration that was initiated by the US FDA, UC Davis, and Agilent Technologies to sequence the genetic code of at least 100,000 infectious organisms and accelerate the diagnosis of foodborne illnesses. UC Davis will integrate OpGen's Argus whole genome mapping system into its current DNA sequencing workflow for sequence assembly and validation of the genomes.

Through the integration of OpGen's whole genome mapping technology, The 100K Genome Project will create a new gold standard for high-quality microbial reference genomes. These data will be used in the surveillance and management of international foodborne microbial outbreaks, and to establish a high-fidelity global reference database for microbial genomes.

The 100K Genome Project will publish the genomes that are completed and validated using OpGen's Whole Genome Maps to a database, providing access to the genomic maps for public health agencies throughout the world. The FDA is advocating rigorous quality control standards for this reference database whereby genomic information should be validated by two independent methods.

"OpGen's technology allows us to complete sequencing and provide quality control of genomes drafted by data produced using short read next-generation sequencing methods," said Dr Bart C Weimer, professor, department of population and reproduction, school of veterinary medicine, University of California, Davis, and director of The 100K Pathogen Genome Project. "Whole genome mapping provides an independent method to detect sequence variations and misassemblies, and aids us in closing the gaps. Final whole genome maps will assist health agencies in outbreak management of food borne diseases which cause tremendous risk to public health."