OpGen Demonstrates Whole Human Chromosome Mapping Capabilities at 2012 AGBT Meeting

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Findings Reveal Ability to Detect Structural Variations in Human Genomes, Providing Researchers with a New Tool to Investigate the Causes of Genetic Diseases

Gaithersburg, Md.—February 14, 2012— OpGen, Inc., a whole-genome analysis company developing and commercializing a complete suite of break-through products and services based on its proprietary Whole Genome Mapping technology, announced today a new application for whole human chromosome mapping that improves the completeness of human genomes and enables thorough analysis of a wide spectrum of structural variations. This novel application will allow researchers to investigate the causes of diseases such as autism and developmental disorders where structural variations are suspected but have not been observed due to the limitations of existing genomics analysis tools. OpGen will present findings demonstrating this expanded functionality at the 2012 Advances in Genome Biology and Technology (AGBT) meeting to be held in Marco Island, Florida, on February 15-18, 2012.

Preliminary results from a comparative genomics study using the company's Whole Genome Mapping technology and Genome-Builder™ tool suite demonstrate the ability to efficiently and accurately order and orient large sequence scaffolds on a human genome *de novo* sequence project. The findings also demonstrate the ability to effectively construct complete high density physical maps of human chromosome arms and have detected structural variations between human individuals. The data will be presented in a poster session by Richard Moore, M.D., Ph.D., chief scientific officer of OpGen, on Friday, February 17 at 4:30 p.m.

"The ability to detect structural variations and large scale genomic rearrangements using whole human chromosome mapping now enables researchers to better understand the markers and origins of inherited and somatic genetic diseases," said George M. Church, Ph.D., professor of genetics at Harvard Medical School and director of the Center for Computational Genetics. "OpGen's new technology is an exciting advance in the area of human genomics research and has the potential to lead to the development of new clinical diagnostic tests and companion therapeutics for patients."

Structural variations in human chromosomes are known to cause some types of mental retardation, muscular dystrophy and certain cancers such as leukemia and lymphoma. However, very few tools exist today that can identify new structural variations that might be associated with human genetic diseases. Sequencing and array CGH are limited in the kinds of genetic information they can provide. OpGen's Whole Genome Mapping technology can detect structural variations including balanced rearrangements, inversions and translocations, which are very challenging to detect with current methods.

"Many genetic diseases such as autism and certain types of cancers can't be explained by genetic sequencing alone," said Douglas White, chief executive officer at OpGen. "Until now, researchers have not had the tools necessary to correlate the order and orientation of genes within a chromosome to completely and accurately determine the structural variations. When combined with sequence data, OpGen's Whole Genome Mapping technology provides scientists with a more complete view of human chromosomes. We look forward to launching this breakthrough application through our MapIt services in 2012."

About OpGen, Inc.
OpGen, Inc. is a leading innovator in rapid, accurate genomic and DNA analysis systems and services. The company's Argus® Whole Genome Mapping System, GenomeBuilder™ and MapIt® Services provide high resolution, whole genome maps for sequence assembly and finishing, strain typing and comparative genomics in the life sciences market. OpGen's powerful technology dramatically improves the quality of data and time-to results by providing sequence information from single DNA molecules more rapidly and less expensively than previously possible. The company is dedicated to positively influencing individual healthcare outcomes, advancing scientific research and enhancing public health by delivering precise, actionable information and results to customers in the life science and healthcare communities. OpGen's customers include leading genomic research centers, biodefense organizations, academic institutions, clinical research organizations and biotechnology companies. For more information, visit www.opgen.com.