

ST. LOUIS, MO, September 27, 2013 **/24-7PressRelease/** -- MOgene Green Chemicals LLC (MGC), a wholly owned subsidiary of MOgene, LC has been selected for a two-year, \$1.5 million grant from the U.S. Department of Energy's Advanced Research Project Agency - Energy (ARPA-E) to develop a technology that will convert natural gas into energy-dense transportation fuel at a more affordable cost. MGC will expand its research team based at the BioResearch and Development Growth (BRDG) Park to deliver the results and build a business in this area.

The MGC project is one of 15 energy projects selected by the ARPA-E to participate in the agency's new REMOTE program (Reducing Emissions using Methanotrophic Organisms for Transportation Energy). A total of \$34 million was awarded to advance efforts to develop a low-carbon dioxide emissions technology that produces a liquid fuel from natural gas through efficient, low-cost biological conversion.

"We are very pleased to receive the ARPA-E funding," said Dr. Abhay Singh, who is leading the MGC and is serving as the principal investigator of the project. "Our technology will capture the ever expanding pool of natural gas resources within and outside of North America and transform them into transportation fuel. There is also an opportunity to capture stranded gas or bionatural gas and transforming them to higher density and infrastructure compatible fuels and chemicals. Cost and yield are major barriers in transformation of natural gas and our approach provides the opportunity to do both issues."

The key to MGC technology is the use of a photosynthetic bacterium which is known to utilize sunlight for its entire energy requirement including fixation of CO₂. By combining energy from sunlight, MGC technology will convert natural gas into fuel and would minimize emission of greenhouse gases.

Most methylotrophic organisms typically generate metabolic energy using natural gas as the substrate and if sunlight can be used as the source of this energy, it will increase efficiency, reduce equipment costs associated with the bio-based production of fuel from natural gas. When the technology is completely developed, it will be a single step conversion of natural gas into fuel.

"We are excited to receive this grant to test our concept to develop a process for cheaper and cleaner fuel," said Shaukat Rangwala, senior vice president of MOgene LC. "It allows us to expand, add more jobs and further promote St. Louis' efforts to be a hub for plant and life science innovation."

About ARPA-E ARPA-E was officially authorized in 2007 and first funded in 2009. The Agency invests in high-potential, high-impact energy technologies that are too early for private-sector investment. ARPA-E is changing what's possible by thinking big, thinking bold, and thinking differently about energy innovation. For more information on ARPA-E and its innovative project portfolio, please visit <http://www.arpa-e.energy.gov/>.

About MOgene Green Chemicals, LLC MOgene Green Chemicals LLC was established in 2010 as a wholly owned subsidiary of MOgene, LC. Both companies are located at BRDG Park at the Donald Danforth Plant Science Center. The company's primary objectives are to engineer biocatalysts with novel functionality for production of molecules from non-food feedstocks that can be used for production of transportation fuel as well as commodity and specialty products. The parent company is a leader in providing genomics services. To learn more about MOgene, please visit, <http://www.MOgene.com>.