



RENEWABLE PETROLEUM™ TECHNOLOGY: TAILORED PRODUCTION OF BIOFUELS

J. Antonio Rocha-Valadez. LS9, Inc. 100 Kimball Way, South San Francisco, CA, 94080.
Fax: (650) 589-1289, e-mail: arochavaladez@ls9.com

Keywords: Biofuels, fatty acid esters, fermentation

Current transportation fuels are predominantly derived from petroleum feedstocks and are a complex mixture of refined hydrocarbons. Petroleum, on which modern day society was built and is now dependent, is a diminishing resource with increasing environmental, political, and economic disadvantages. An ideal alternative would be chemically similar to petroleum, allowing broad and rapid adoption, derived from renewable resources, scalable to support current and future demands, domestically derived, and cost competitive. To meet this need, LS9 has developed a molecular tool box and a suite of industrial microorganisms that enable the selective production of a diverse portfolio of hydrocarbon products and derivatives. This talk will cover an introduction to the technology, an overview of some of the unique scientific challenges encountered, and the development of a scalable production process to enable the economic manufacture of these fuels in the near future.