

<http://www.amyrisbiotech.com/index.html>
Amyris Biotechnologies

Company Overview

Amyris Biotechnologies is dedicated to improving the world by leveraging breakthroughs in synthetic biology. Amyris' technology is able to provide a consistent, cost-effective supply of biofuels and other high-value natural compounds, including pharmaceuticals, fine chemicals, and nutraceuticals.

Amyris is currently focused on two major projects:

- **The production of the drug artemisinin to fight malaria in developing countries**
- **The production of renewable biofuels to help reduce global warming**

Synthetic Biology

Synthetic biology is a new scientific discipline that involves the design and construction of new biological parts or systems, as well as the re-design of existing biological systems, for specific applications. This new discipline takes the knowledge gained from the analysis of existing biological systems and applies it to the construction of new ones.

Amyris is using synthetic biology techniques to build biological solutions to important global problems. We focus on creating new metabolic pathways in microbes, essentially re-programming them to function as living factories for the environmentally-friendly production of high-value chemicals. Our **first project** converts a microbe known for its ability to make copious amounts of alcohol, such as yeast, into a chemical factory for a proven anti-malarial drug. Our **second project** is the development of a fermentation process that uses custom-designed microbes to renewably produce second-generation, high-performance biofuels that are cost-effective and compatible with current automotive and distribution technologies.

New Technology for Energy Needs: Cost-Effective, Renewable Biofuels

Amyris Biotechnologies is developing a large-scale fermentation process to renewably produce biofuels. Amyris is developing a gasoline substitute that contains more energy than ethanol, will result in lower cost and less polluting biofuel blends, and is fully compatible with today's cars and the existing petroleum infrastructure. We are also **developing a diesel substitute** that can achieve lower costs and much greater scale than vegetable oil based biodiesels. Our next generation biodiesel is inherently stable in cold temperatures and does not break down during storage and transport like conventional biodiesel. Both our gasoline substitute and our diesel substitute will be made from the same feedstocks and production plants that are used to make ethanol.

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