



ABOUT VIRENT

Virent was founded in 2002 to commercialize the aqueous phase reforming (APR) process, an innovative technology which generates hydrogen from sugar, as originally published in the journal *Nature* in 2002. Researchers at Virent have since further advanced the technology into the BioForming® process, which combines APR with other technologies to produce renewable liquid fuels, fuel gases, and other chemicals.

In early 2006, Virent made ground-breaking discoveries by expanding the BioForming technology to convert plant sugars into hydrocarbon molecules like those produced at petroleum refineries. These high-energy hydrocarbon mixtures can then be used directly or blended seamlessly to make conventional liquid fuels. Gasoline was the first liquid fuel Virent produced using this technology, followed shortly thereafter by diesel and jet fuel.

Since this discovery, the BioForming process has advanced rapidly, exceeding milestones for yield, product composition, and cost. These developments have fueled Virent's dramatic growth in number of highly skilled employees and pilot plants housed in a state of the art catalytic biorefining facility. Virent has received significant commercial interest and counts Cargill and Honda among its leading investors. The company has entered into key strategic industrial collaborations, including with Royal Dutch Shell for the development and commercialization of biogasoline. This collaboration will accelerate the technology's time to market and enable broad commercial penetration.

Virent has raised over \$30M in equity financing with its latest round in the fall of 2007. The company has also attracted \$11M in federal funding including a second Advanced Technology Program grant from the National Institute of Standards and Technology in September of 2007. This grant is to develop effective and economical methods to break down non-food cellulosic biomass into sugars and other chemical intermediates for further processing into biofuels.

Virent's growing partnerships with major energy, automotive, and agricultural companies, in addition to expanding global interests, continue to validate this game-changing technology.

LEADERSHIP



Lee Edwards – President & CEO

Lee Edwards brings 25 years of global energy leadership and petroleum industry experience to Virent. He was most recently President and CEO of BP Solar, a global solar technology provider with 2200 employees and \$1 billion in sales. Also at BP plc, Mr. Edwards held a range of executive positions including Chief Information Officer for BP's Downstream business, President for BP Pipelines North America, and Global Brand VP where he led the strategy, design, and launch of the current BP Helios brand, and Executive assistant for the CEO of BP plc. Mr. Edwards is a graduate of the Wharton

School at the University of Pennsylvania where he earned a MBA in Finance. In addition, he holds a BS in Chemical Engineering from Bucknell University and completed the Executive Program at Stanford University.



Randy Cortright, PhD – Founder & Chief Technical Officer

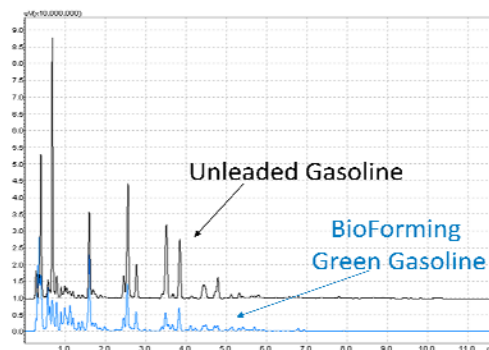
Dr. Cortright, Virent's Founder and Chief Technical Officer, is a leading figure in the field of catalytic processing of biomass-derived feedstocks into chemicals and fuels. He is the co-inventor of Aqueous Phase Reforming, the innovative pathway to biofuels and bioproducts used by the BioForming™ technology platform. Dr. Cortright's background includes research and development, process design, start-up, and operations of large scale industrial catalytic processes at UOP LLC, a provider of petroleum and petrochemical process technologies. He received BS and MS degrees in Chemical

Engineering from Michigan Technological University. After leaving UOP, Dr. Cortright earned his PhD in Chemical Engineering, from the University of Wisconsin. In academia, he specialized in catalytic systems for the clean manufacturing of fuels and petrochemicals. Dr. Cortright currently holds seven issued patents and is the author of over 40 technical publications.



THE BIOFORMING® PROCESS

Virent is re-defining the search for clean, renewable energy to replace fossil fuels. Its BioForming process is a game-changing technology that economically transforms the sugars from biomass, such as sugar cane, wheat straw, or switch grass, into universally usable fuel. It produces gasoline, diesel, and jet fuels with 30 percent more miles per acre than corn ethanol processes and a small CO₂ footprint. The fuels produced through this process are fully compatible with existing engines, pipelines and fuel pumps.



Gasoline Comparison

Virent's technology is leading a historic shift from a fossil fuel economy to a renewable biomass-based economy. The sugars and starches in biomass can now be quickly and efficiently converted into hydrocarbon fuels and chemicals using Virent's patented BioForming process. It's about a fast, robust, scalable process that generates more net energy than traditional processes. It's about economically producing the same fuels that we use every day. It's about re-defining the future with clean, carbon neutral energy. It's about time.

BENEFITS OF THE BIOFORMING PROCESS

Premium Liquid Fuel Products: The technology produces a wide range of high quality hydrocarbon fuels that have no barriers to full market penetration. With the same composition and energy content as petroleum fuels, these biofuels can be distributed through existing pipelines and fuel pumps, and used at high blends with, or as drop in replacements for, petroleum fuels in today's engines. They can also work in applications currently without viable biofuel solutions, such as air travel.

Feedstock Flexible: Sugar mixtures, including 5 and 6 carbon sugars, disaccharides, and other water soluble polysaccharides derived from sugar and energy crops, as well as agricultural and forestry waste, are possible feedstocks. This flexibility translates into more biomass options and lower input costs.

Low Carbon Fuels: The process is CO₂ neutral, water positive, and has low life cycle emissions. This energy efficient, exothermic process runs under moderate conditions and requires no external energy inputs. The process yields 30% more net energy than corn ethanol due to the natural separation of gasoline from water (ethanol distillation requires energy inputs of nearly 50% of its final energy content).

Robust Catalytic Process: Catalysts provide increased productivity due to faster chemical reactions, proven process reliability, reduced energy requirements, and demonstrated scalability to large production volumes. In contrast to biological processes which depend on living enzymes or microbes, catalysts are capable of utilizing variable feedstocks and of producing a range of molecules.

Cost-Competitive Biorefinery Solution: Feedstocks and end products can be optimized based on local market conditions. This fast and continuous (versus batch) process lowers capital expenditures, while low energy requirements reduce operating costs. Together, these attributes provide a biorefinery solution with a broad mix of high value products and attractive market returns.

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