Fallbrook Technologies Inc. Unveils New Accessory Drive Applications at Clean Heavy Duty Vehicles Conference

– NuVinci® continuously variable planetary (CVP) technology helps improve fuel economy, generate more power at idle, and facilitate the use of smaller engines –

(Long Beach, Calif., March 16, 2009) – Fallbrook Technologies Inc. (Fallbrook), a pioneering technology company dedicated to improving the performance and flexibility of transmissions for engine, electric motor and human-powered devices, today announced a new suite of automotive- and truck-related applications for its *NuVinci* CVP, referred to as continuously variable accessory drives (CVADs)..

Fallbrook is exhibiting these applications at the Clean Heavy Duty Conference and Expo in Long Beach, Calif. **Click here** to go to the **CVAD** page.

A CVAD is a device that helps the engine-driven accessories on a car or truck (alternator, air conditioner, water pump, etc.) run more efficiently. These accessories have, in the past, been connected directly to the engine by a serpentine belt, so their speeds are tied to engine speeds. A CVAD sits between the engine and these accessories, allowing accessory speed to vary according to performance needs rather than engine speed

There are three major CVAD applications for the *NuVinci* CVP: alternator-mounted, crankshaft-mounted, and supercharger.

A *NuVinci*-equipped CVAD alternator improves performance by decoupling engine speed from alternator speed, enabling the alternator to produce maximum current regardless of engine speed. CVAD increases power at idle, expands front-end accessory capacity, and reduces engine startup torque requirements.

A crankshaft-mounted CVAD with *NuVinci* technology similarly decouples all the belt-driven accessories from engine speed, enabling them to run at the minimum speed required to meet accessory load. At higher engine speed, decreasing accessories' speed decreases power consumption, thus saving energy and improving fuel economy. Additional energy savings can be realized by optimizing the accessories for a narrow speed range operation. At low engine speed, the accessory belt speed can be increased to provide additional compressor cooling power, or to increase the water pump speed.

In a supercharger application, the *NuVinci*-equipped CVAD provides a power management system for engine accessories that can deliver significantly more boost at low engine speeds by enabling high supercharger speeds, providing increased torque for launch and towing. The *NuVinci* CVP supports an essentially infinite number of speed ratios between its high and low ratio extremes, with programmable fast, smooth and continuous ratio changes. This improves fuel economy and enables vehicle designers to reduce engine size without sacrificing performance. For fleet vehicles, the supercharger can reduce operating costs by delivering Diesel-like performance from gasoline engines.

"At a time when the auto industry is searching for new solutions, these CVAD applications deliver game-changing improvements in performance and fuel economy," said William G. Klehm III, Fallbrook's president and CEO. "The *NuVinci* CVP is affordable advanced technology that is simple to manufacture, easy to package, and a proven winner in the marketplace."

The *NuVinci* CVP uses a set of rotating and tilting balls positioned between the input and output components of a transmission that tilt to vary the speed of the transmission. Tilting the balls changes their contact diameters and varies the speed ratio. *NuVinci* technology is the most practical, economical and universally adaptable continuously variable transmission (CVT) for human-powered and motor-powered vehicles and machines. Current commercial applications of the *NuVinci* CVP include bicycles and light electric vehicles. Other commercial implementations are in various stages of development.

Since entering the market in 2007, the *NuVinci* CVP has won five major design and innovation awards, including a prestigious R&D 100 Award as one of the year's most technologically significant products. The first *NuVinci*-equipped bicycles also won the *Popular Science* Best of What's New (Grand Award, Recreation) award.

About Fallbrook Technologies Inc.
Fallbrook Technologies Inc. (Fallbrook) is a technology company dedicated to improving the performance and flexibility of transmissions for vehicles and equipment. Fallbrook's revolutionary NuVinci® continuously variable

planetary (CVP) technology is applicable to virtually any machines that use a transmission such as bicycles, light electric vehicles, automobiles, agricultural equipment, and wind turbines, among others. *NuVinci* technology offers companies the flexibility to design and produce next-generation products that are better tailored to their unique business, market and competitive requirements.

Fallbrook has built an extensive portfolio of over 325 patents and patent applications worldwide. Fallbrook's vigorous research and development activities will continue to enhance the performance and capabilities of *NuVinci* technology. To learn more about Fallbrook and its *NuVinci* technology, please visit www.fallbrooktech.com.