Greg Waite, CEO of InventionShare™, announced today that Circuit Seed™, a new family of circuit building blocks for processing analog signals using fully digital components will have a significant impact on the medical device market. Many medical semiconductor manufacturers are experiencing issues with the impact of analog as accuracy, size, power requirements and ease of design are, increasingly, key factors in medical device development and manufacturing.

Mr. Waite said, “Circuit Seed is unique in that it can impact everything in the medical product manufacturing space. We can supply circuits that are much more precise, smaller, use less power, give better performance and generate less heat. This includes both non invasive Class 2 medical products such as bench top, portable and wearable devices and Class 3 implantable or invasive products. Medical imaging and sensor based products are highly leveraged by Circuit Seed where high accuracy at lower cost is critical, and we enhance mobility and communications through our low noise amplifier and enhanced RF capabilities."

According to Databeans, a market research firm that tracks semiconductors shipments, the medical market for semiconductors continues to expand at a healthy pace. This market constitutes 12 percent of the worldwide industrial market for semiconductors and it is expected to gain share as it grows from $4.5 billion in 2015 to close to $6.5 billion by 2020. Overall, semiconductor suppliers have done a reasonably good job in integrating the front-end analog-to-digital (A/D) functions in a single piece of silicon. Design consulting firms Sterling Smartware and LogicPD, who specialize in medical product design, confirm that features and power requirements are the principal factors in selecting semiconductors for medical devices; companies are considering putting more functions into more compact designs, making ever-smaller products that use less power and heat, and use embedded wireless circuits - an area where Circuit Seed excels.

Mr. Waite said that in order to get the power and size needed for a number of medical products, manufacturers will need to make big strides in converting all and not just some analog circuits into digital processes. All analog processes get a lift by being digital and we offer 20-bit resolution, far beyond the convention of eight. Circuit Seed's analog to digital designs are easier to work with and, from a chip and product design perspective, offer amazing flexibility, unlike analog designs which require a specific set of precision design criteria.

Circuit Seed inventions are founded on a mixture of decades of experience and creativity,

supported by a robust portfolio of IP. Circuit Seed introduces a dramatic shift in the existing way of designing analog circuits, effectively eliminating many of the known shortcomings. Benefits include:ÂÂ unprecedented precision without precision parts; ultra-linear operation over an extreme dynamic range (>106); low noise, ultrahigh speed (analog at logic speed) and extreme low voltage (down to ~0.1V power supply); process parameter independence; compact footprint (amplifiers about the size of a couple of NAND gates); low power (~100uW for multi-GHz-range operation down to 10pW for KHz-range operation); and portable designs between ultra-deep sub-µm CMOS technology process nodes. This paradigm shift has eliminated the use of current mirrors or differential matched pairs with traditional bulky analog transistors while being able to recover from sleep mode at logic speed.

Simulation and silicon test results have demonstrated a dramatic reduction in power, better performance and higher accuracy, all with small integrated circuit footprints. The circuit designs are much simpler, reducing product costs with faster development, so less testing is required and there are fewer parts to assemble. These circuits are far more reliable in the newest CMOS processes, making Circuit Seed a real breakthrough for companies such as Texas Instruments, Renesas, TI and Freescale - all major manufacturers of semiconductors in the medical space.

“We have an opportunity to work with manufacturers of circuits, semiconductors, electronics and with medical product designers making a difference for the consumer, the medical community, that translates into better patient experiences and outcomes.ÂÂ We can develop truly unique technology that would reduce healthcare costs, world-wide, by making devices more user friendly for medical staff and which provide more accurate and timely information for the patient - at a much lower cost. We believe that all companies currently manufacturing semiconductors in this space will be using some form of Circuit Seed application in their products as early as Q1 2017,” said Mr. Waite.

InventionShare is now looking for strategic partners who want to incorporate Circuit Seed technology into medical product research projects or for more near term product offerings, with the benefit of leveraging market share and profitability through competitive feature sets and design and manufacturing advantages.

For more information, contact Kensel J. Tracy ktracy@inventionshare.com or 613-225-7236 extension 116.

For more information on Circuit Seed, see www.circuitseed.com

About InventionShare™

InventionShare is a unique invention equity company that accelerates the global adoption of socially responsible game changing inventions to the benefit of inventors, companies, people and planet