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Carbon Design Innovations, Inc. Introduces a New  
Carbon Nanotube Probe Technology for Atomic Force Microscopy

*CNT based probes deliver a new level of AFM imaging performance*

Burlingame, Calif., June 16, 2009 – [Carbon Design Innovations, Inc.](#) (C|D|I) today announced the availability of two new atomic force microscope (AFM) probes types with carbon nanotube (CNT) tips. The CCHAR (carbon core high-aspect ratio) and CCHR (carbon core high-resolution) CNT probes offer quantum improvements for AFM imaging, substantially improving results, reducing overall cost of operation and opening new avenues for research.

“The carbon nanotube AFM probes from C|D|I reveal the most accurate surface morphology, especially for cellular samples such as rat basophilic lymphocytes cells,” states Dr. G. Y. Liu, University of California, Davis. “All observations reflect upon the superior geometry of these CCHAR probes, which exhibit little convolution in AFM imaging. We certainly hope to see these advantages among other biological specimens such as, proteins, tissues and biopolymeric materials.”

“AFM researchers understand that the next leap in AFM productivity will be based on improved probe technology,” said Vance Nau, CEO,

Carbon Design Innovations. “They have been looking for reliable CNT probes for many years, however, the inability to consistently manufacture CNT probes that live up to their promise has limited widespread adoption, frustrating users and manufacturers alike.”

C|D|I has a patent pending process for the deterministic manufacture of carbon nanotube (CNT) devices. Based on this breakthrough process, the company is able to produce CNT AFM probes that are perfectly straight and precisely aligned, allowing them to be set at desired angles to the surface. The CNT is at the core of the probe structure and the CNT is securely anchored providing for robust and stable imaging with previously unseen levels of performance. C|D|I’s CNT probes are more stable and have longer imaging lifetimes than other probe types. In addition, the ability to reinforce longer probes and control taper angle provides users with deep-trench scanning ability not currently available. As a result, C|D|I probes offer customers greater imaging flexibility, performance and reproducibility that will enable them to make significant advances in AFM research. The new CNT AFM probes from C|D|I are compatible with all major AFM systems, giving users an easy path for improving AFM performance without making a substantial investment in new instrumentation.

The CCHAR probe offers high-aspect ratio imaging capability and is designed for materials science, metrology and life science applications. It offers stability and durability in a high-aspect ratio probe designed for difficult to resolve scanning operations such as deep-trench imaging. The nominal CNT total probe length is 1 $\mu$  with the exposed CNT length being 500nm. The CCHAR can be mounted onto any AFM Cantilever.

The CCHR probe family provides high-resolution for material science and life science applications. It offers the durability, stability and high resolution capabilities of a multi-wall CNT tip. The nominal total CNT length is 500 nm, with the exposed CNT tip <200 nm. It can be mounted onto any AFM cantilever.

C|D|I probes are now available for order and will begin shipping in the third quarter of 2009.

The Company also today announced that they have secured angel funding from a group of private investors.

### About Carbon Design Innovations

Carbon Design Innovations develops and manufactures carbon nanotube devices based on a patented, deterministic methodology. The company's initial focus is on manufacturing AFM probes.

The company was founded by AFM and CNT industry veteran and company president, Ramsey M. Stevens in January, 2008. Vance Nau, Ph.D. joined the company as CEO in July 2008. Nau has over 25 years experience in management at scientific instrumentation companies and recently led AFM manufacturer Molecular Imaging for five years until its successful acquisition by Agilent Technologies.

More information about Carbon Design Innovations is available at [www.carbondesigninnovations.com](http://www.carbondesigninnovations.com), by sending an e-mail inquiry to [info@cdi-nano.com](mailto:info@cdi-nano.com), or by calling +1 650.697.7070.