

# Nanogen Issued Patent for Electronic Microarray With Memory

March 25 2005

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Nanogen, Inc., developer of advanced diagnostic products, announced today that it was issued U.S. Patent No. 6,867,048, "Multiplexed Active Biologic Array" by the U.S. Patent and Trademark Office. The '048 patent relates to a method of addressing one or more electrodes (or "test sites") across multiple rows and columns of a microarray. The patent also covers a method for storing the value of the voltage associated with each electrode in a local memory. This "smart chip" technology is a key feature of Nanogen's NanoChip 400 electronic microarray, the company's second generation multi-purpose system for developing and performing molecular diagnostic tests.

Using local memory circuits provides for precise control of the currents delivered to individual electrodes on the array, while minimizing the utilization of "off-chip" circuitry and overall system costs. The electric potential is controlled at each of the NanoChip's 400 test sites to move and concentrate DNA or RNA, providing accuracy, speed and flexibility for developing molecular diagnostic tests. Storing critical voltage information allows for precise control of the biological molecules during analysis and increases data management efficiency by tracking test site activation and array usage directly on the electronic microarray cartridge.

"This addition to our growing intellectual property portfolio illustrates our ability to develop differentiated advanced diagnostic products that add value to the company and to research and clinical laboratory customers," said Howard C. Birndorf, Nanogen chairman of the board

and CEO.

This new patent expands Nanogen's intellectual property portfolio to include 114 patents issued in the U.S.

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