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## **BioNanomatrix Announces Issuance of Key Nanochannel Array Patent for High Throughput Macromolecular Analysis**

*Patent is licensed exclusively from Princeton University*

**PHILADELPHIA**, Pa., March 30, 2010—BioNanomatrix, Inc., a developer of breakthrough single-molecule genomic analysis technology, today announced the issuance of U.S. patent 7,670,770 for nanochannel arrays that enable high-throughput macromolecular analysis. Also disclosed are methods of preparing nanochannel array chips, methods of analyzing macromolecules such as entire strands of genomic DNA, and systems for implementing these methods.

Dr. Han Cao, the Company's founder and chief scientific officer, said: "This patent covers the fundamental method and device for isolating, imaging, and analyzing nucleic acid biopolymers confined within nanoscale fluidic channels. This invention allows for true linear analysis of very long biomolecules such as native genomic DNA hundreds of thousands of base pairs in length without cloning or PCR amplification. This transformative technology has single cell and single molecule sensitivity and will open many new opportunities in the biomedical field. We enable the analysis of intact, yet minute, biological samples without tedious processing and complex error-prone reassembly. This technology will change the way we design and do many biomedical experiments and analyses in the future. We are very excited about the official issuance of this key patent, which places BioNanomatrix in the forefront of this emerging field."

Edward L. Erickson, president and CEO of BioNanomatrix, added, "Under our license agreement with Princeton University we now have two issued patents. Additionally, the Company itself is currently prosecuting eight families of patents covering many aspects of our NanoAnalyzer® system."

Single molecule analysis of intact native DNA has been limited by the difficulty of "linearizing" and manipulating these long, complex molecules. To address these limitations, a Princeton University research team, including Dr. Cao, developed a simple approach that uses a nano-fluidic chip to untangle and guide individual molecules into an array of nanochannels. This technique is ideally suited for multiplexed parallel processing for applications ranging from direct imaging analysis of structural variations in a person's genome to DNA mapping and sequencing applications.

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The NanoAnalyzer® is an integrated system that for the first time enables pan-genomic identification and analysis on a molecule-by-molecule basis, delivering single molecule sensitivity in a highly parallel format. It is designed to provide ultra high-resolution analyses of macromolecules, such DNA and proteins, and their interactions more rapidly, comprehensively, and cost effectively than currently available approaches. This technology promises many potential applications in diagnostics, personalized medicine and biomedical research.

US Patent No. 7,670,770, was issued to Princeton University on March 2, 2010.

BioNanomatrix is the worldwide exclusive licensee of the technology covered by this patent.

### About BioNanomatrix

BioNanomatrix is developing breakthrough nanotechnology-enabled genome analysis systems for applications in life science research, molecular diagnostics and personalized medicine. The company's platform technology permits users to image directly and analyze very long strands of DNA in real time at the single-molecule level, at both high resolution and very high throughputs. This technology has the potential to increase the utility of whole genome imaging and analysis for a wide range of research and diagnostic applications, providing fast, comprehensive and low-cost analysis of genomic, epigenomic and proteomic information. BioNanomatrix's technologies are licensed exclusively from Princeton University. Founded in 2003, the company is headquartered in Philadelphia, PA, and is backed by Battelle Ventures, Ben Franklin Technology Partners of Southeastern Pennsylvania and KT Venture Group and other institutional and private investors. For more information, visit: [www.bionanomatrix.com](http://www.bionanomatrix.com).

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