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**FOR IMMEDIATE RELEASE:**

**Akonni Awarded \$500,000 Phase 2 National Science Foundation Grant  
to Develop Lab-on-a-Film™ Microarray Device**

**Reel-to-reel manufacturing on film has significant potential to substantially reduce costs  
of producing mid-multiplexed molecular tests for global health settings**

**Frederick, MD — Sept 5, 2012** — Akonni Biosystems, a life science tools / molecular diagnostics company that develops, manufactures, and plans to market molecular testing devices for diagnosing infectious diseases and human genetic disorders, announced today the receipt of a \$498,780 Phase 2 SBIR Grant from the National Science Foundation (NSF). This second round of funding from NSF will enable Akonni to further develop its Lab-on-a-Film microarray consumable that can be manufactured on ultra-low-cost film using a highly automated, reel-to-reel production process.

“Reel-to-reel assembly is a method of high volume manufacturing used predominantly for the assembly of lateral flow strips and flexible film electronics,” said Dr. Christopher Cooney, Principal Investigator on the grant and Director of Engineering at Akonni Biosystems. “The benefit of this manufacturing approach is that Lab-on-a-Film microarray production and assembly can be automated at very high speeds, resulting in ten- to one hundred-fold savings in consumable costs.”

Lab-on-a-Film manufacturing has the potential to produce mid-multiplexed microarray consumables for just a few dollars. Combining low-cost production with the multiplexing power of Akonni’s gel-drop microarrays, to simultaneously interrogate tens to hundreds of disease markers in a single clinical sample, offers the potential to change the economics of patient wellness monitoring and disease diagnosis. This is especially true in global health settings, where end user adoption of a technology depends critically on cost.

Among projected applications for the Lab-on-a-Film consumable is its integration into the Akonni hands-free, end-to-end genetic testing system. This system is currently being designed

for use in moderate-complexity lab settings. It primarily uses Akonni-developed intellectual property, which includes technology that covers cell lysis, rapid nucleic acid extraction (TruTip<sup>®</sup>), thermocycling, amplification (On-Chip PCR<sup>™</sup>), and microarray imaging and analysis. Eventual use of Lab-on-a-Film consumables is anticipated in systems designed for CLIA-waved settings.

For more information about Akonni Biosystems and its ultra-rapid, nucleic acid extraction technology and microarray-based testing systems, visit [www.akonni.com](http://www.akonni.com).

### **About Akonni Biosystems**

Akonni is a developer of highly innovative products and technologies designed to significantly increase productivity in the life science tools market (“Sample Prep Market”) and to dramatically lower the cost of testing in the molecular diagnostics market (“MDx Market”). Akonni Biosystems was founded in 2003 and has over 48 patents issued or pending. Supported by a series of government grants and contracts from NIH, CDC, DOE, DOD, NIJ, and NSF, the company has significantly advanced the original technology by improving its capabilities from sample preparation to final result. Commercial products and those in its near-term pipeline include rapid sample preparation methodologies for nucleic acid extraction and multiplex panel assays for detecting multidrug-resistant tuberculosis (MDR-TB), upper respiratory infections, viral encephalitis, and healthcare-associated infections (MRSA).