



Contact:
Kevin Banks
Akonni Biosystems
301-698-0101 ext. 287
kbanks@akonni.com

FOR IMMEDIATE RELEASE:

Akonni Biosystems Awarded \$280,000 National Institutes of Health (NIH) Grant to Develop Benchtop Nucleic Acid Isolation Instrument

Industry-first approach brings together Akonni's MagVor™ mechanical cell lysis and TruTip® nucleic acid purification technologies in a single low-cost platform

FREDERICK, MD – October 2, 2012 – Akonni Biosystems, a life science tools/molecular diagnostics company, has been awarded a \$280,784 grant by NIH to develop a fully automated sample preparation workstation for isolating nucleic acids from lysis-resistant targets. The system will initially be used for general research, and eventually in clinical settings. This award enables Akonni to develop a simple-to-use and fully automated benchtop nucleic acid isolation workstation, ideally suited for purifying nucleic acid from Gram-positive bacteria such as staphylococci (e.g., methicillin-resistant *Staphylococcus aureus*, or MRSA), streptococci, and mycobacteria (e.g., tuberculosis), or from complex clinical matrices including blood and nasopharyngeal specimens. In the future, this same system is expected to be applicable for a range of molds and spores.

MRSA and tuberculosis are among the most common hospital-acquired infections (HAI), or nosocomial infections, according to a Kalorama Information 2012 report titled, "Hospital Acquired Infections: Testing Markets". Five percent of the nearly 40 million US hospital visits a year are complicated by an HAI, and nearly 100,000 people die annually from nosocomial infections, a fifth of these being from MRSA alone. By providing a more rapid and efficient means of obtaining the DNA necessary for advanced molecular approaches for disease screening and drug resistance/susceptibility testing, the Akonni nucleic acid extraction platform being developed under this grant has the potential to greatly reduce the toll of nosocomial infections.

"TruTip is an innovative smart consumable for sample preparation created specifically to ease bottlenecks in genetic testing and ultimately improve quality of life. We plan to integrate the

underlying technology of our established TruTip extraction system with our MagVor mechanical cell lysis technology. This will bring a new level of automation efficiency and cost savings for sample preparation to research labs and eventually clinical laboratories around the world,” states Dr. Christopher Cooney, principal investigator of the project and Director of Engineering at Akonni Biosystems. Cooney adds, “This new platform will be compatible with a simple-to-use consumable kit and will be capable of purifying nucleic acid from 12 samples in less than 20 minutes, making it valuable to a broad range of molecular and hospital laboratories, including those operating in global health settings.”

“I’m very glad that NIH is awarding grants for this stage of applied research, which can too often prove to be a ‘valley of death’ for medical device development, between initial discoveries and ultimate commercial availability,” said Congressman Roscoe Bartlett, Maryland’s Sixth District representative. “This platform from Akonni could reduce the time and costs required to identify, track, and eliminate dangerous infectious agents from hospitals and other healthcare facilities. It has the potential to greatly aid efforts to prevent the millions of deaths annually around the world attributable to hospital-acquired infections.” Prior to his election as the Sixth District representative, Congressman Bartlett was awarded 20 patents and received the Jeffrey’s Award for his career contributions to advancing aerospace and aeronautical medicine. He is a senior member of both the House Science and Space Committee and the House Small Business Committee. Over the course of his years as a Maryland Congressman, he has worked to develop policies supporting, and to secure funding for, scientific research, and to ensure that regulations and programs promote rather than impede innovation by small businesses.

Congressman Bartlett explained, “Informed by my experience as a biological scientist and researcher, I conduct rigorous oversight to ensure taxpayers’ funds are well spent, while joining with my colleagues to support federal funding for research through the National Science Foundation (NSF) and NIH and mechanisms such as the Small Business Innovation Research (SBIR) program. I’ve watched with pride as Akonni Biosystems grew from its start in 2003, moving into Hood College’s Frederick Innovation Technology Center in 2005, to now being a company with over 35 employees. Small entrepreneurial businesses, such as Akonni Biosystems, as well as government facilities like Fort Detrick, NIH, and the National Institute of Standards and Technology (NIST), contribute to making Maryland America’s second largest per capita biotechnology cluster, and fourth overall, with 500 core biotechnology companies comprising 8% of the entire U.S. biotech industry. Life sciences companies employ 71,000 Marylanders and conduct \$14 billion annually in research and development.”

For more information about Akonni Biosystems, its ultra-rapid sample preparation technology, and its mid-multiplex genetic testing approaches, visit 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).