

**Sole Source Purchase Justification  
2012-DN-BX-0074  
Columbus Police Crime Laboratory**

**1. Description**

The objective of the project funded by Grant #2012-DN-BX-0074 is to handle, screen, and analyze backlogged forensic DNA casework samples and to improve DNA laboratory infrastructure and analysis capacity, so that forensic DNA samples can be processed efficiently and cost effectively, and future backlogs can be prevented.

Under this project, the laboratory will make expenditures with the vendor Life Technologies for equipment, supplies, and software. The purchases are anticipated to total over \$100,000 over the course of the project. The anticipated costs are listed below.

<u>Item</u>	<u>Category</u>	<u>Cost</u>
Genetic Analyzer – AB 3500	Equipment	\$110,000
Quantifiler kits	Supplies	\$15,000
Identifiler kits	Supplies	\$42,000
Y-filer kits	Supplies	\$5,500
Genetic Analyzer supplies	Supplies	\$4,223
AB 3500 Genetic Analyzer Software	Other	<u>\$15,500</u>
Grant Total		\$192,223

Life Technologies is the only vendor that can provide the required items in order for the laboratory to meet project goals and to continue to be in compliance with guidelines defined within the solicitation document.

**2. Explanation for Sole Source**

The solicitation mandates that laboratories must follow NDIS DNA Data Acceptance Standards for all profiles uploaded to NDIS. There are only two vendors of approved STR typing kits that are currently approved by NDIS for DNA analysis: one is supported by Life Technologies and the other is supported by Promega. This agency is utilizing the Life Technologies kits; therefore, certain products and services to be purchased under this project are the only products and services that can be used to facilitate project goals and are only available from Life Technologies.

The decision to utilize Life Technologies STR testing kits testing kits was made over 10 years ago with the purchase of the laboratory's first 310 genetic analyzer. Since that time, our laboratory has been utilizing the Life Technologies platform which includes 310 and 3130 genetic analyzers and 7500 real time PCR instrumentation. At the time of the original purchase the decision to utilize Life Technologies kits and platform was made in large part to the fact that the developmental validation had already been performed by Applied Biosystems using their kits on that instrument.

Life Technologies is the only vendor of capillary electrophoretic genetic analyzers that has been validated for forensic DNA testing as well as the Genemapper IDX software required for the instrument's operation.

DNA National QA Standards also require that laboratories validate their entire DNA testing procedure which includes the procedures, STR testing kits used, and the instruments used in the analysis of samples. Any significant changes to the validated procedure must in turn be validated. Validation of the procedure used in this laboratory took months and involved expenditure of significant resources and funds. As this laboratory validated the Life Technologies STR testing kits, the lab procedures for DNA testing and all instruments at considerable cost in supplies, and personnel resources, it is not cost effective to completely re-validate the procedure when purchasing new reagents for the process.

Life Technologies is an expert in the field of human identification. For twenty-five years, Life Technologies has led the development and commercialization of DNA detection and analysis technologies providing innovative systems that allow human identification and forensic scientists to maximize their use of DNA in solving crimes and establishing identity.

### **3. Time Constraints**

The project period for award 2012-DN-BX-0074 is 10-1-2012 through 3-31-2014 and purchases will be made during this time. Without the ability to purchase the proposed items/services from Life Technologies within the project period, the goals of the project would not be met.

It is unknown how long it would take a vendor other than Life Technologies to reach the same level of competence – because Life Technologies is one of two approved STR kit vendors by NDIS (as stated earlier, the use of an NDIS approved analysis method is mandated in the solicitation), and because the entire laboratory system has been set up and validated to use the Life Technologies platform, it would take more than the current project period to transition to another vendor. It would take years for STR testing kits other than those provided by Life Technologies to become approved by NDIS for use.

### **4. Uniqueness**

Life Technologies is the only provider of the capillary electrophoretic genetic analyzers validated for DNA analysis. The analysis software package and maintenance contracts are tied to the analysis equipment. There are no other vendors who can provide the items or services to support this platform.

Life Technologies is the only vendor that can provide the STR testing kits to this laboratory considering the protocols and procedures that have already been validated. Life Technologies is one of the two NDIS-approved STR testing kit vendors and the laboratory has been using Life Technologies' kits for years.

## **5. Other Points**

Life Technologies is one of two approved STR testing kit vendors by NDIS (as stated earlier, the use of an NDIS approved analysis method is mandated in the solicitation). It is a requirement of the solicitation that limits this agency's ability to pursue other vendors for these services and products. Therefore, Life Technologies is the only vendor who can now provide the items proposed for use to meet project goals.

## **6. Declaration**

The proposed expenditures with Life Technologies are in the best interest of our agency, because they will allow us to continue to meet project and program objectives. If these purchases were not allowed, not only would the objective of the project not be met, but significant negative impacts would occur in project metrics and would affect the agency's ability to process backlogged cases.