



Sedgwick County...
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Sedgwick County

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Wichita, KS 67203

Legislation Text

File #: 16-298, Version: 1

CONSIDERATION OF A NATIONAL INSTITUTE OF JUSTICE (NIJ) 2016 CAPACITY ENHANCEMENT AND BACKLOG REDUCTION PROGRAM GRANT IN THE AMOUNT OF \$311,341 FOR NEW DNA LABORATORY INSTRUMENTATION.

Presented by: Dr. Timothy Rohrig, Director, Regional Forensic Science Center.

RECOMMENDED ACTION: Approve the application for the grant, and if awarded authorize acceptance of the grant, the establishment of budget authority as provided in the Financial Considerations section of this Request.

The Forensic Science Center currently has three of the four full time Biology/DNA Section positions filled with qualified case-working scientists. A fourth scientist has been selected to join the section in mid-June and a qualified analyst cross-training in Firearms remains proficient in DNA analysis in the interim.

The Section has seen a dramatic rise in casework over the last two years. A multidisciplinary task force convened in Kansas to determine the number of untested kits statewide and the study revealed that over half of the untested kits reside in Sedgwick County. The heightened awareness accompanies an increase in reported sexual assaults in the jurisdiction; both factors contribute to the fact that the section has experienced a 4-fold increase in sexual assault submissions.

To address the caseload challenge the Center currently has two genetic analyzers. Both are 3130 models that are over a decade old and service for these models ends in 2018. Therefore, the laboratory must purchase and validate a genetic analyzer that is capable of unrestricted 6-dye analysis that will be fully supported beyond the 2018 timeframe.

The new instrument will interrogate 20+ loci (rather than the current 16). If the laboratory processes the same number of samples as are tested today, nearly twice the amount of data will result. Accordingly, the laboratory recognizes the limitations of human data interpretation and conventional statistical methods. A solution for the interpretation of challenging DNA profiles are probabilistic methods enabled by computer software. Continuous probabilistic genotyping systems, such as STRmix™, enable laboratories to streamline the interpretation and review of mixture samples. Since 2011, laboratories nationwide have been moving toward probabilistic methods because they are in compliance with mandates set forth by the National Commission on Forensic Science for improving DNA mixture interpretation.

This program is an acquisition program to allow the RFSC to replace instrumentation that is no longer supported, increase DNA quantification and typing efficiency, and to obtain the software, hardware, and training for the implementation of fully continuous probabilistic statistical analysis. The purchase acquisition will follow standard Sedgwick County [KS] purchasing policies. Funding of this equipment acquisition program will allow the RFSC to maintain the current level of forensic services with enhanced capabilities which may help reduce future backlog of cases being processed by the DNA

Laboratory at the Center.

Grant Renewal: No

Never Applied: No

Applied; not awarded: No

Grant Summary and Timeline: The grant application is due May 23, 2016 with an award to be issued approximately six months later on or around December, 2016. Instrumentation, equipment and software, procurement is anticipated to begin in January, 2017 with delivery planned for March, 2017. Staff training will occur March-May 2017 and validation will commence thereafter (June 2017). Upon completion of validation and protocol development, full implementation will occur (anticipated mid- to late-2018).

Financial Considerations:

Grant period starts:12/1/2016

Grant period ends: 11/30/2018

Source of funding

Grant: \$311,341

Required Match: \$0

Required Cash Match: \$0

Required In-Kind Match: \$0

Other funding:\$0

TOTAL SOURCES \$311,341

Uses of funding (Note: Include any Required Matches in your totals)

Operational costs: \$311,341

Personnel: \$

Contractual services: \$62,669

Operational supplies: \$120,000

Equipment:\$125,000

Indirect administrative costs:\$0

Capital projects cost:\$0

TOTAL USES \$311,341

(Total Uses of Funding should Match

Sources)

Source of matching funds: N/A

(Personnel matches should include

Position Numbers and Cost Centers)

Source of other funding: N/A

Budget Authority Adjustment: Budget requirements for 2017 are listed on the attached Budget Form.

Personnel considerations: N/A

Expected measurable outcomes:

- Replacement of old genetic analyzers for which parts are no longer manufactured and support ends in 2018 thus enabling the DNA Laboratory to continue operations.
- New data analysis software will improve laboratory efficiency by allowing scientists to analyze, review, print and redact quantification data from their workstations.
- More recently developed chemistries have faster sample processing than current methods

directly increases laboratory efficiency; these chemistries may also be used for rapid detection of male DNA in sexual assault samples, thus negating the need for lengthy colorimetric and microscopic techniques.

- Acquisition of a continuous probabilistic genotyping system enables laboratories to streamline the interpretation and review of mixture samples, as data interpretation is a significant bottleneck; this will help mitigate the long-term need for additional scientists to conduct time consuming mixture interpretations.

- Database queries have been designed to allow tracking of case throughput and response time (number of samples tested per month and turn-around-time), percent decrease in backlog (number of backlogged cases at the beginning and end of grant period), and the percent DNA profiles resulting in a CODIS match (counting the number of profiles entered and the number of hits).

Requirements from Sedgwick County: (reporting requirements or other actions required of the organization should the grant be awarded)

The grant requires that metrics be tracked and reported semi-annually. Sample throughput, turn-around-time, backlog, and number of CODIS entries/hits are among the metrics that must be provided.

The data collected during the grant period must be available for review three (3) years post award.

The County must comply with standard federal grant requirements including those found in the attachment section under "Certifications Regarding Lobbying: Disbarment, Suspension and Other Responsibility Matters; and Drug-Free Workplace Requirements" and "Standard Assurances."

Alternatives: Do not apply for these funds and appropriate equal funds from the existing County budget to address this need for replacement of old equipment and implementation of new software and technologies.

Policy considerations: None

Legal considerations: None