

The SFPD Criminalistics Lab requires essential forensic tools to enhance investigations in drugs, gangs, and violent crimes. Funding will be used to acquire the following equipment in support of PPA 1-Law enforcement programs and PPA 2-Prosecution and court programs. The equipment has been identified as critical to strengthening the laboratory's capability to support drug enforcement efforts, gun and gang-related prosecutions, and the prosecution and defense of violent crime cases.

1. PPA 1 & 2 - DART-MS System

The DART-MS system has been identified as a critical equipment need for the San Francisco Police Department Criminalistics Laboratory as it is on the cusp of achieving accreditation of the Controlled Substance Analysis Unit (CSAU). This technology will enhance the ability of the CSAU to receive and analyze seized drug evidence within the City and County of San Francisco, evidence which is currently diverted to an outside agency at a cost to the community. Once fully operational, the CSAU will transition to a high-volume workflow and this resource will be of great assistance in adjusting to the increased workload.

The ability to efficiently and accurately detect and identify controlled substances is an essential component within drug enforcement, gun/gang prosecution, violent crime prosecution and defense. A thorough evaluation of the laboratory's current equipment, technology and personnel within the CSAU led to the determination that a DART-MS system will add immediate value and impact to the handling of seized drug evidence by reducing analysis time and increasing analyst safety, both critical in the analysis of controlled substances.

The DART-MS system provides high quality, efficient analysis of seized drug evidence, specifically in the category of opioids and synthetic drugs. This instrument performs analysis that is rapid and non-destructive with near instantaneous screening results. These attributes are needed to prevent backlogs and extended turn-around times as the CSAU goes on-line with casework following accreditation. High quality, efficient analysis are part of an effective drug enforcement effort and

enhance community safety in a variety of ways. This technology increases the capacity of the CSAU to absorb the drug evidence caseload, which has been outsourced to another agency. The cost of outsourcing drug evidence creates a strain on community resources. CSAU accreditation and resumption of seized drug evidence analysis has endless benefits to the City and County of San Francisco, directly related to PPA 1 and PPA 2 and overall public safety.

The DART-MS contract will include analyst training, validation and implementation guidance to ensure seamless and successful integration of this technology within the CSAU workflow. Training in operating procedures, implementation and validation may be hands-on, on-site as well as virtual.

2. PPA 1 & 2 - Foster + Freeman MVC FFLEX Fuming Cabinet, DCS6 Pro with RUVIS & CSU, and MVC Lite

Latent fingerprint evidence is often the backbone of cases involving firearms, gang-related violence, homicides, assaults, robberies, and narcotics trafficking. A thorough review of the laboratory's current equipment and technology available for latent print examination led to the identification of several gaps in technology. Several instrument systems and technologies were identified as having the ability to address these current limitations and enhance the contributions of the Crime Lab in the areas of gun/gang prosecution, violent crime prosecution and defense. The effectiveness of fingerprint evidence depends on the availability of modern equipment to develop, visualize, and document ridge detail consistently across diverse substrates. Our current fuming and imaging capabilities are often insufficient for the volume and complexity of firearm evidence submitted. Many such items are large or irregularly shaped and cannot be accommodated by our current fuming chambers. Our imaging equipment lacks the sophistication to recover weak or complex impressions. This gap directly affects our ability to support law enforcement in building strong cases against violent offenders. The equipment listed below is ideally suited to address these challenges and enhance our capabilities moving forward:

A. The **Foster + Freeman MVC FFLEX** is a high-capacity, fully automated cyanoacrylate fuming system that provides precise control of humidity, temperature, and fume distribution. This ensures consistent and reproducible development of latent prints on non-porous surfaces such as firearms, ammunition magazines, automotive parts, and electronic devices. For gun-related and gang violence prosecutions, this system will allow our laboratory to process large and complex exhibits that currently cannot be accommodated. Its advanced safety features also protect examiners from exposure to harmful fumes, supporting both personnel safety and compliance with accreditation standards.

B. The **Foster + Freeman DCS6 Pro** is a forensic imaging system designed for multi-spectral illumination, real-time enhancement, and high-resolution documentation of latent prints on complex surfaces. Its integration with **Reflective Ultraviolet Imaging System (RUVIS)** technology enables the non-destructive detection of latent prints prior to chemical treatment. This capability is critical for firearms, which often yield fragile or limited prints that may be lost during processing. By detecting prints early, the DCS6 Pro with RUVIS & Cylindrical Surface Un-Wrapper (CSU) maximize recovery while preserving evidentiary integrity. The resulting digital images are immediately suitable for comparison, database searching, and courtroom presentation, directly supporting prosecutions in violent crime and drug cases.

C. The **Foster + Freeman portable fingerprint fuming chamber (MVC Lite)** provides efficient processing for smaller exhibits such as narcotics packaging, mobile phones, shell casings, and knives. Drug enforcement cases generate a high volume of packaging and paraphernalia requiring latent print development. Having a dedicated, compact chamber allows these smaller items to be processed without delaying larger exhibits, reducing bottlenecks and improving turnaround time. The combination of the FFLEX and MVC Lite systems ensures that our laboratory can address the full range of different types of evidence encountered in violent crime and drug cases.

3. Training

Training in these new technologies will be established based on manufacturer's recommendations and integrated into current laboratory workflows to ensure proper procedures and best practices are maintained.