

Tox Talk: Three Things You Should Know About Obtaining Toxicology Resources

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Even the most efficient, well-run laboratory will struggle if it does not possess the resources necessary for the demands and expectations put on today's toxicology labs. Understanding how to increase your budget through grant funding and utilizing other resources can be essential in creating the necessary infrastructure to succeed.

The following grants and their government overseers are relatively well known. Some laboratories have an easier time obtaining this funding depending on the competition within your state. It is worth the time to investigate which of these options work for your lab.

- Highway Safety Offices (Department of Transportation)
 - This group's mission includes impaired driving and has a significant amount of federal and state grant funding. These grants are opportunities for instrumentation, training, etc.
 - [State Highway Safety Offices | GHSA](#)
- Coverdale (Public Safety entities)
 - Bureau of Justice Assistance provides formula and competitive grants that cover all aspects of forensic toxicology and has a focus on postmortem work. These grants are opportunities for training, outsourcing, lab accreditation, or the short-term funding of new ideas that could provide a vital service to stakeholders. This can be used as a proof-of-concept for future growth and services.
 - [Paul Coverdell Forensic Science Improvement Grants Program | Overview | Bureau of Justice Assistance](#)
- OD2A (Public Health departments)
 - The Center of Disease Control provides grants to state health departments. These grants focus on the surveillance of drugs and ultimately reducing drug overdoses. These grants are opportunities for instrumentation, training, etc.
 - [Overdose Data to Action | Overdose Prevention | CDC](#)
- National Institute of Justice
 - Provides grants for larger research, development, or collaborative projects. These are usually at a scale for larger labs or universities.
 - [Funding & Awards | National Institute of Justice](#)
- Regional Toxicology Liaisons
 - Provides support to government funded toxicology programs through communications, resources, criminal justice system coordination, and better data reporting.
 - [About the RTL Program](#)

Many of the grants listed above are controlled through different state agencies. All of those agencies are either direct or indirect partners to a toxicology labs mission. Creating and maintaining relationships with these groups will improve your chances at being awarded a grant.

- Public Health

- Collaboration with this group provides vital insight on death investigation and overdose deaths. They usually have an interest in a laboratory's postmortem toxicology statistics and drug trends. Their epidemiologists can be extremely helpful in understanding your data which is vital in deciding the placement of future resources. These groups usually have task forces set up to deal with a multitude of issues that affect forensic toxicology.
- Public Safety entities (Law Enforcement)
 - Collaboration with this group can assist in educating the stakeholder on proper evidence submission, set expectations for both sides, and provide an understanding of toxicology results.
- Department of Transportation/Highway Safety Office
 - Collaboration with this group provides an opportunity to provide impaired driving (alcohol and/or drug) results within your jurisdiction to a group whose mission is to reduce that issue.
- Coroners/Medical Examiners
 - There are many variations across the United States on who is in charge of death investigations within a jurisdiction. Regardless, having a collaborative relationship can help set priorities and make the daily management of your lab easier.
- Judges
 - Educating this group can improve courtroom experience for toxicologists and help with certain issues such as allowing video testimony.
- Lawyers (Prosecution and Public Defenders)
 - Educating this group can improve courtroom experience for toxicologists and provide vital information for the court system. They can also provide moot court training to better prepare new toxicologists.
- Public Advocates
 - Engagement with community members who promote criminal justice in their communities may be powerful allies for labs.
- Academic Universities
 - Creating partnerships can provide a workforce pipeline through interns, work-study jobs, and student research projects. There can also be opportunities for your staff to provide lectures and have free access to literature.
- Government lawmakers
 - Creating trust with lawmakers is vital when they are evaluating your budget and requests for additional resources. It is necessary to communicate your value and demonstrate that your organization is a proper steward of public funds.
 - Project Foresight is a great tool to evaluate laboratories. It can provide insight on where labs are thriving or struggling. The data obtained from this exercise can be used as a tool to show that the operation is well run but that any increased scope of testing or decreased turn-around times would need additional staffing or operational funds. This third-party analysis can be instrumental in increased government funding. [FORESIGHT | John Chambers College of Business and Economics | West Virginia University](#)

It is vital to write proposals with a deliverable goal that fits within the lab's short and long-term vision. Preferably the project will build infrastructure that will either make the lab more efficient, create a better working environment for analysts, or create a better product for your stakeholders.

- Instruments
 - New instruments can provide needed infrastructure and the technology can increase scope of testing while providing greater efficiency to your testing system. Creating a new method that provides a solution to a known testing gap can help justify being awarded a grant. Make it relevant to what is currently being addressed in the field (rise of NPS, fentanyl, cannabis, etc.) or scope of testing deficiency, such as a stop-testing policy. At the end of this project the laboratory will have an instrument and new method.
- Obtaining lab accreditation
 - Create a plan that details the needed resources to make this a reality. Hiring a quality manager or training existing staff to develop a laboratory's quality management system to meet the accreditation requirements is essential. Determining whether the lab must upgrade an existing LIMS system for document management or the acquisition of a new system.
 - Understanding the time frame associated with ramping up the laboratory to become accredited or to move from one type of accreditation to another.
- Meeting National Standards/Recommendations
 - Identify resources needed to adopt ASB standards.
 - Data: Review how toxicology data is used in your jurisdiction, county, state, etc. Linking improvements to laboratory information management systems (LIMS) to access and share data with stakeholders to get the attention of funding agencies. Packaging your data into an annual report is a great way to share data, document successes, and provide talking points with clients and partners.
- Training
 - Professional meetings- Can be used to increase internal knowledge of toxicologists and gain new ideas from other labs.
 - Board certification- Can be used to increase internal knowledge of toxicologists and create a higher level of professionalism within your organization.
 - Targeted training (e.g. Workshops, Borkenstein Alcohol and/or Drug Course)
 - Virtual training and on-line resources (SOFT, RTI, FTCOE, NIST, etc.)
- Outsourcing a case backlog
 - Laboratories first need to create a testing system to handle all incoming cases within the desired turn-around time. Outsource cases with grant funds to become self-reliant within a set timeframe. Spending money on outsourcing large volumes of cases should only be done within a broader plan of self-reliance. If this is not the case then it is a better use of resources to build up a lab's infrastructure.
 - This process needs to be a collaboration with submitting agencies and prosecution offices to work properly. Prioritizing cases that are least likely to go to court (postmortem) while working more litigious cases (DUI) in-house.

It is critical to identify what the lab needs, create a vision of how this will improve the laboratory's "product", and ensure to finalize the project. Most clients or partners have annual meetings which is a great opportunity to present information of a toxicology lab's importance to their mission. Speaking at these meetings can give you an opportunity to deliver your vision on how additional resources to the toxicology laboratory would add a greater value. This approach will increase laboratories odds of getting an award the next time money is available. These agencies remember when funded projects are not completed. If you want recurring funding through these grants, the lab must complete the project on-time, everytime. Over time, these infrastructure improvements to your laboratory can compensate for decreased local government funding and provide the resources your lab needs to thrive.