



Central (Richmond)



Northern (Manassas)



Eastern (Norfolk)



Western (Roanoke)

DEPARTMENT OF FORENSIC SCIENCE UPDATE

Linda C. Jackson, Director

Presented to the Scientific Advisory Committee

April 11, 2023



Groundbreaking





Central Laboratory Capital Project

- Building updates available online

<https://dfs.virginia.gov/regional-labs/new-central-laboratory-facility/>

Coming Q1 2026





Training for Attorneys and Judges

- Sessions scheduled in-person at all 4 laboratories in 2023
 - **Controlled Substances** – Half-day, May 2023
 - **DNA** – Full-day
 - No registration fee or CLE credits

https://dfs.virginia.gov/training/attorneys_judges/



Applications due April 10



Coming this fall!



Customer Working Group

- Planning Customer Working Group (CWG) meeting after General Assembly
 - Seek feedback from customers on evidence submission policies and services provided
 - Meeting scheduled for May 8, 2023
 - Latent Prints report wording
 - DNA allele tables



Staff Training

- *Stress & Vicarious Trauma Training – MindGen LLC*
 - February – May 2023, four virtual 45-minute sessions
- *Supervisor Civility Training – Karen Michael, PLC, Employment Law, Training & Consulting*
- Updated training goals for 2023
 - Forensic Scientist/Toxicologist series - 16 hours per year
 - Administration & Finance, HR, FLS V-VII - 8 hours per year
 - General Administrative, FLS II/III - 4 hours per year
 - E2917 Practice for Forensic Science Practitioner Training, Continuing Education, and Professional Development Programs



Post-Conviction Project

- Case files identified for review as part of project to be returned to State Records Center
- To be returned to investigating agency:
 - Evidence identified in case files
 - Dried sample extracts
- Podcast



Case Statistics

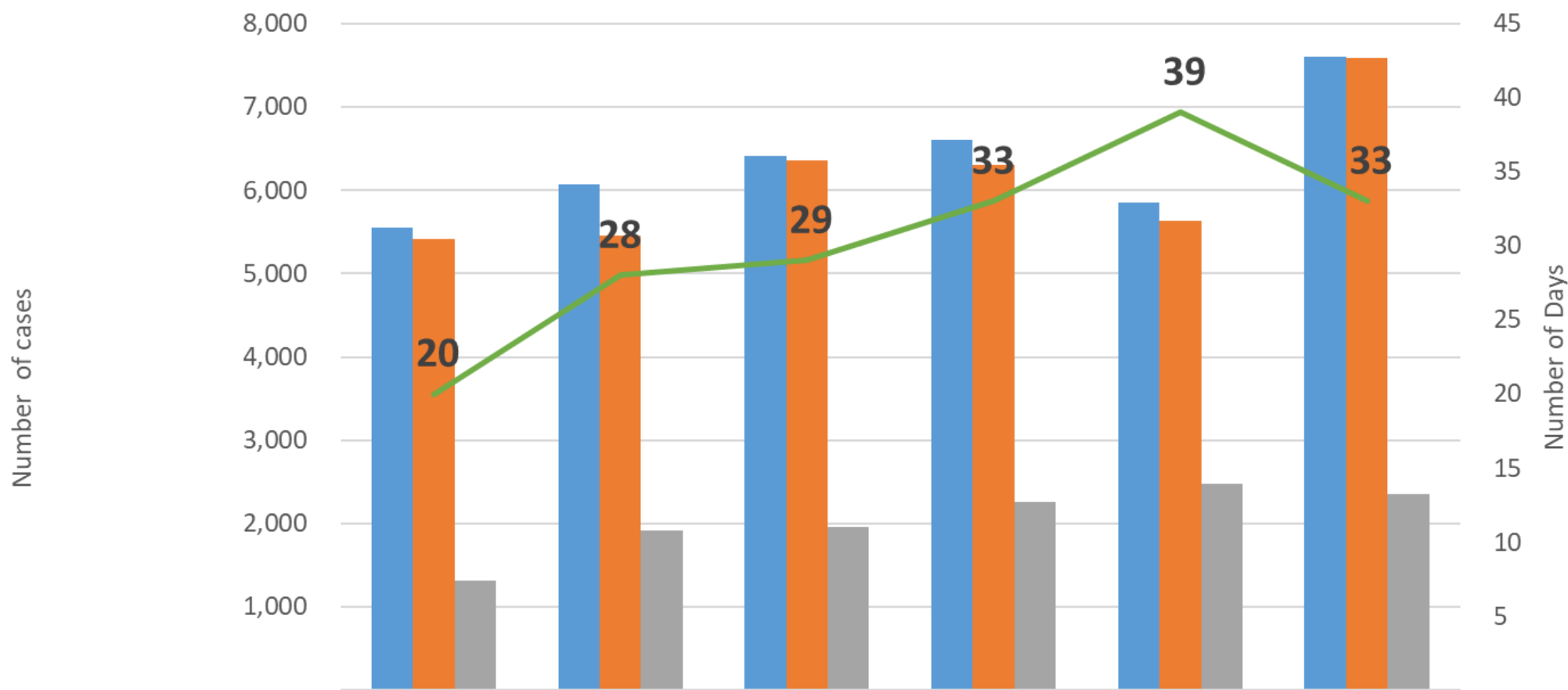


March Workload Statistics

Section	Ending Backlog As of 3/31/2023	Average TAT (in days) March 2023
Controlled Substances	2,355	29
Digital & Multimedia Evidence	79	59
Firearms & Toolmarks	1,466	85
Forensic Biology (DNA)	2,623	200
Latent Prints & Impressions	360	56
Toxicology	1,592	52
Trace Evidence	193	73



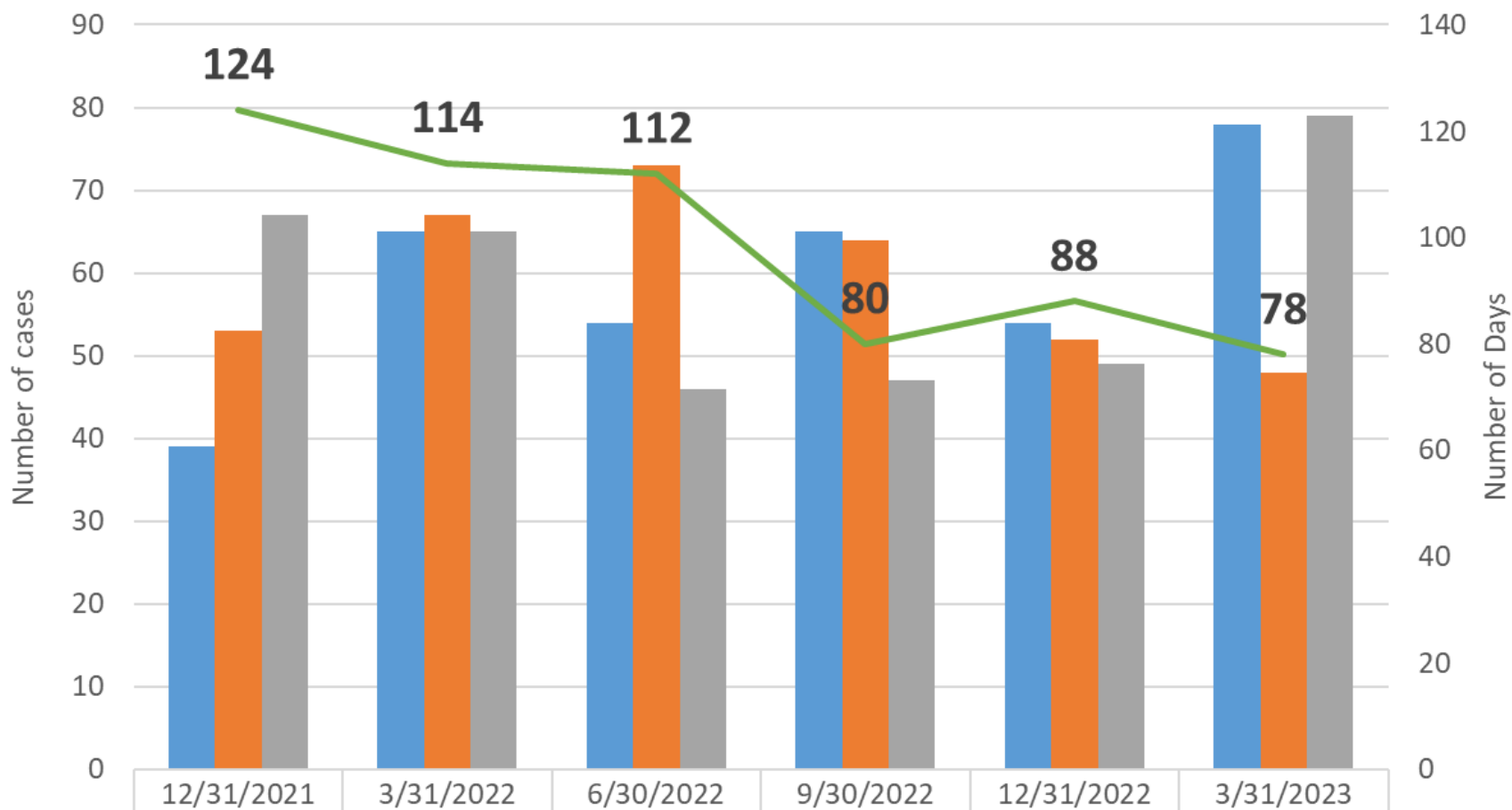
Controlled Substances



	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023
Cases Received*	5,555	6,066	6,410	6,598	5,852	7,599
Cases Completed	5,416	5,459	6,364	6,304	5,637	7583
Caseload	1,309	1,916	1,962	2,256	2,471	2356
Average Days in System	20	28	29	33	39	33

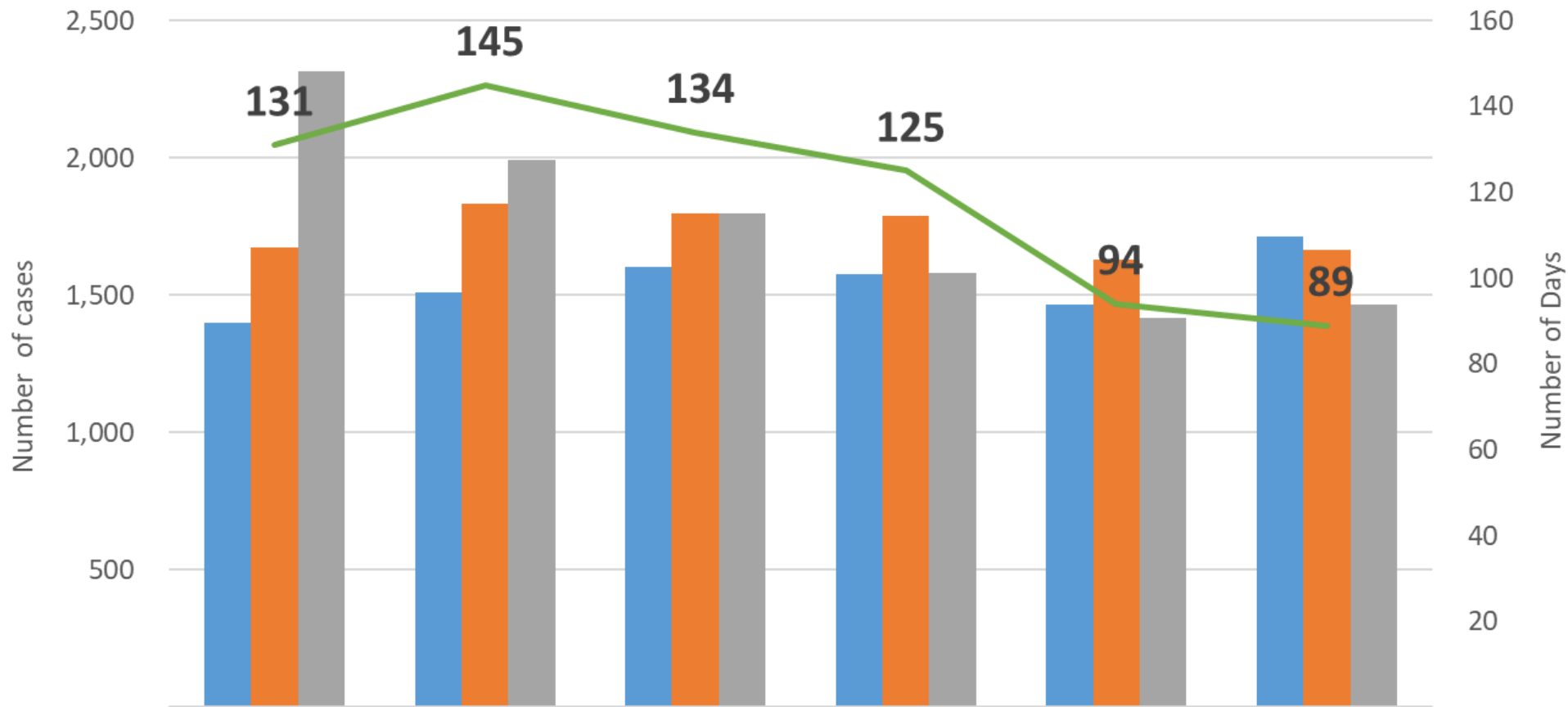


Digital & Multimedia Evidence



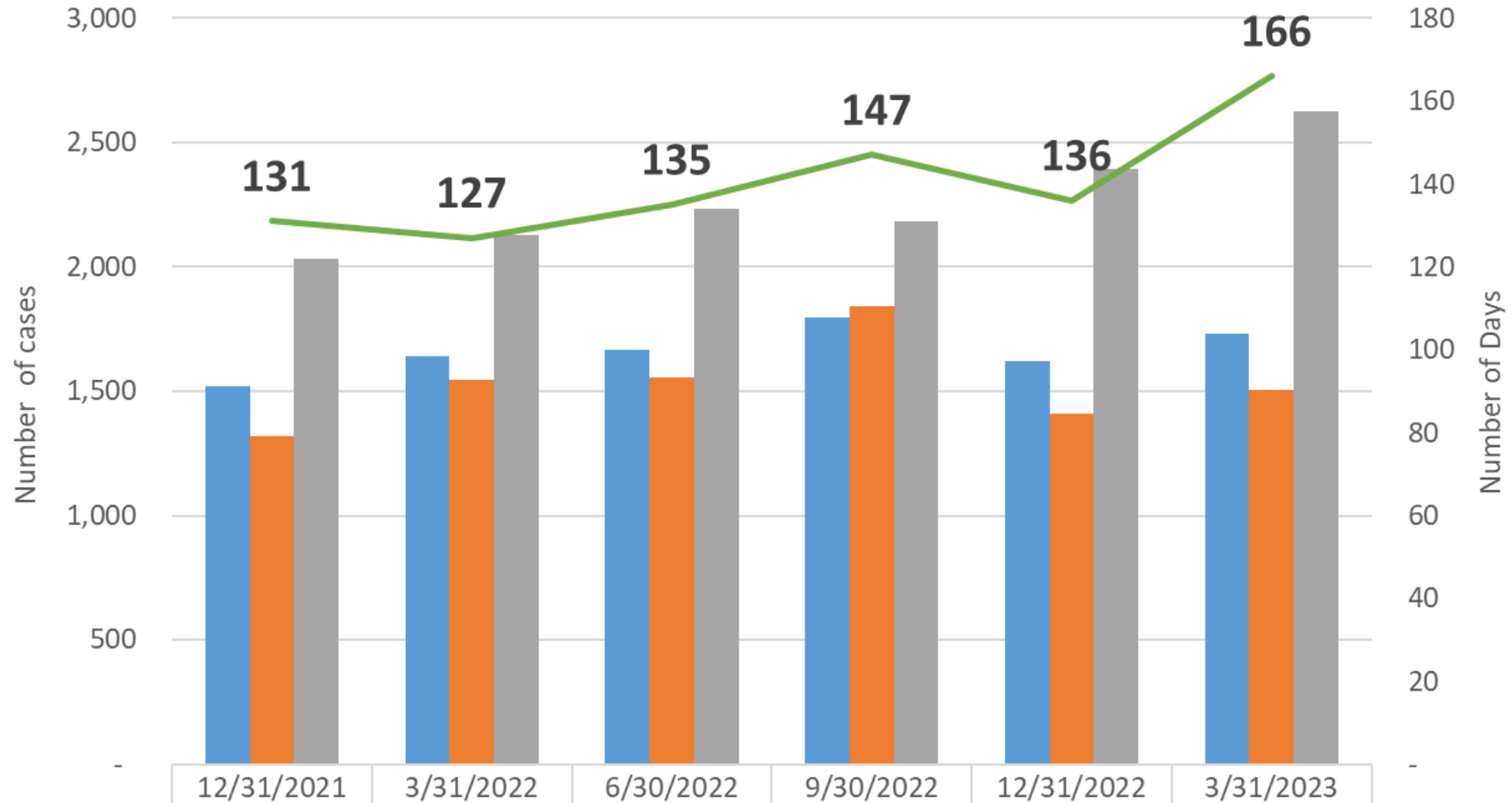
Cases Received *	39	65	54	65	54	78
Cases Completed	53	67	73	64	52	48
Caseload	67	65	46	47	49	79
Average Days in System	124	114	112	80	88	78

Firearms & Toolmarks



	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023
■ Cases Received*	1,401	1,509	1,603	1,575	1,467	1,713
■ Series2	1,674	1,834	1,799	1,789	1,630	1,666
■ Series3	2,317	1,992	1,796	1,582	1,419	1,466
— Series4	131	145	134	125	94	89

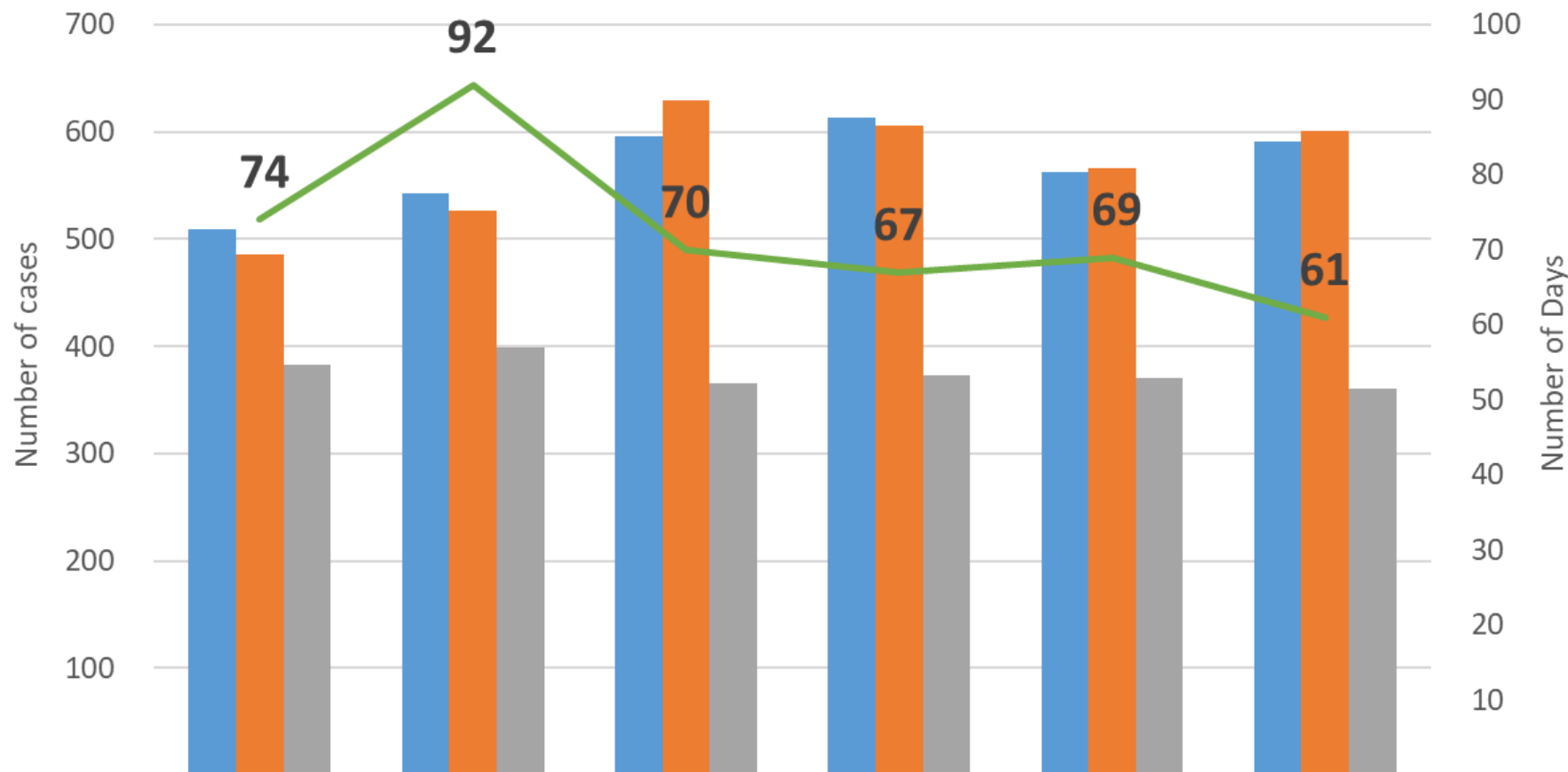
Forensic Biology (DNA)



Cases Received*	1,519	1,641	1,664	1,795	1,622	1,733
Cases Completed	1,318	1,547	1,557	1,844	1,411	1,506
Caseload	2,033	2,127	2,234	2,185	2,396	2,623
Average Days in System	131	127	135	147	136	166

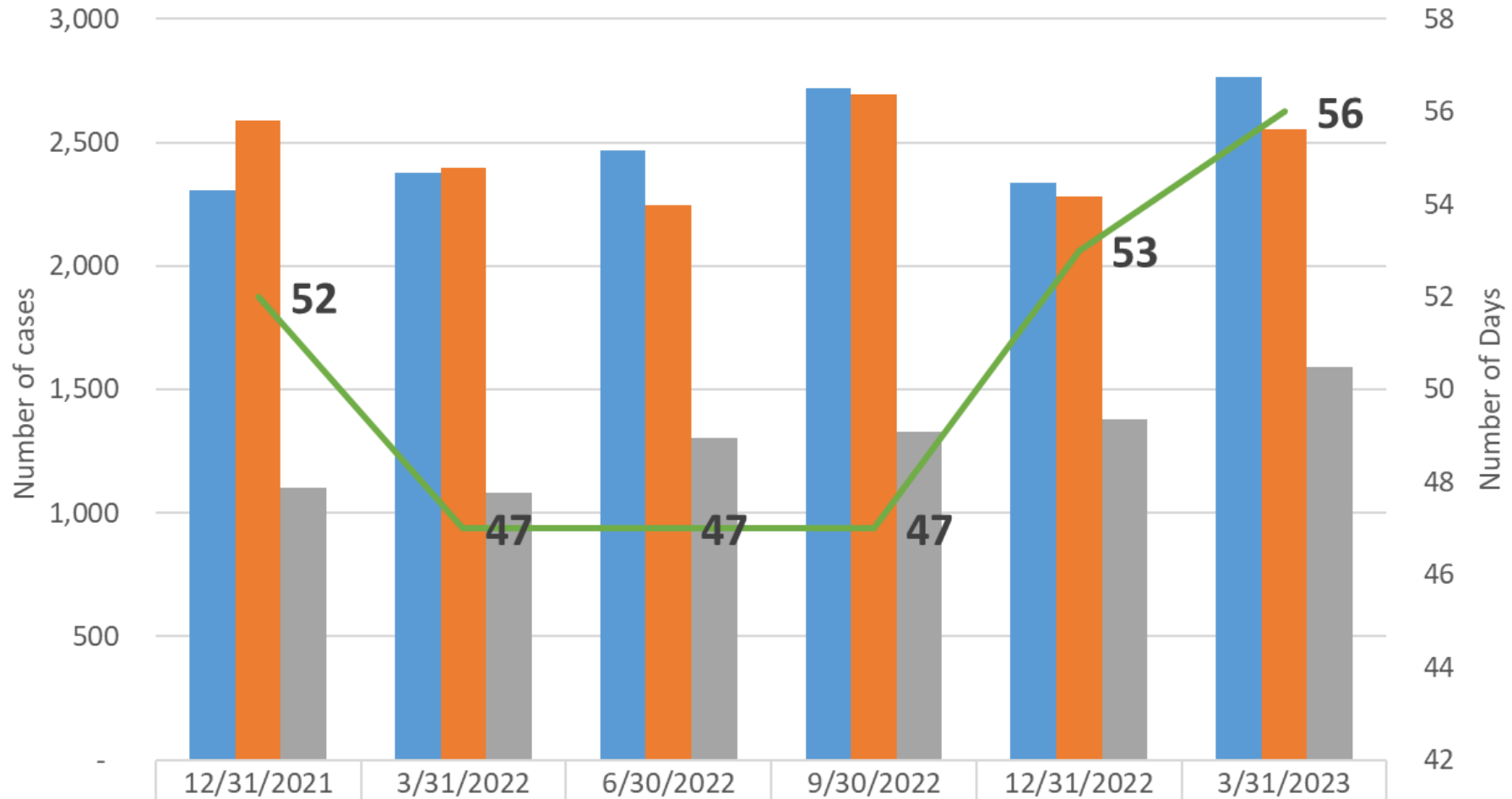


Latent Prints & Impressions



	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023
Cases Received*	509	543	596	613	563	591
Cases Completed	486	527	629	606	566	601
Caseload	383	399	366	373	370	360
Average Days in System	74	92	70	67	69	61

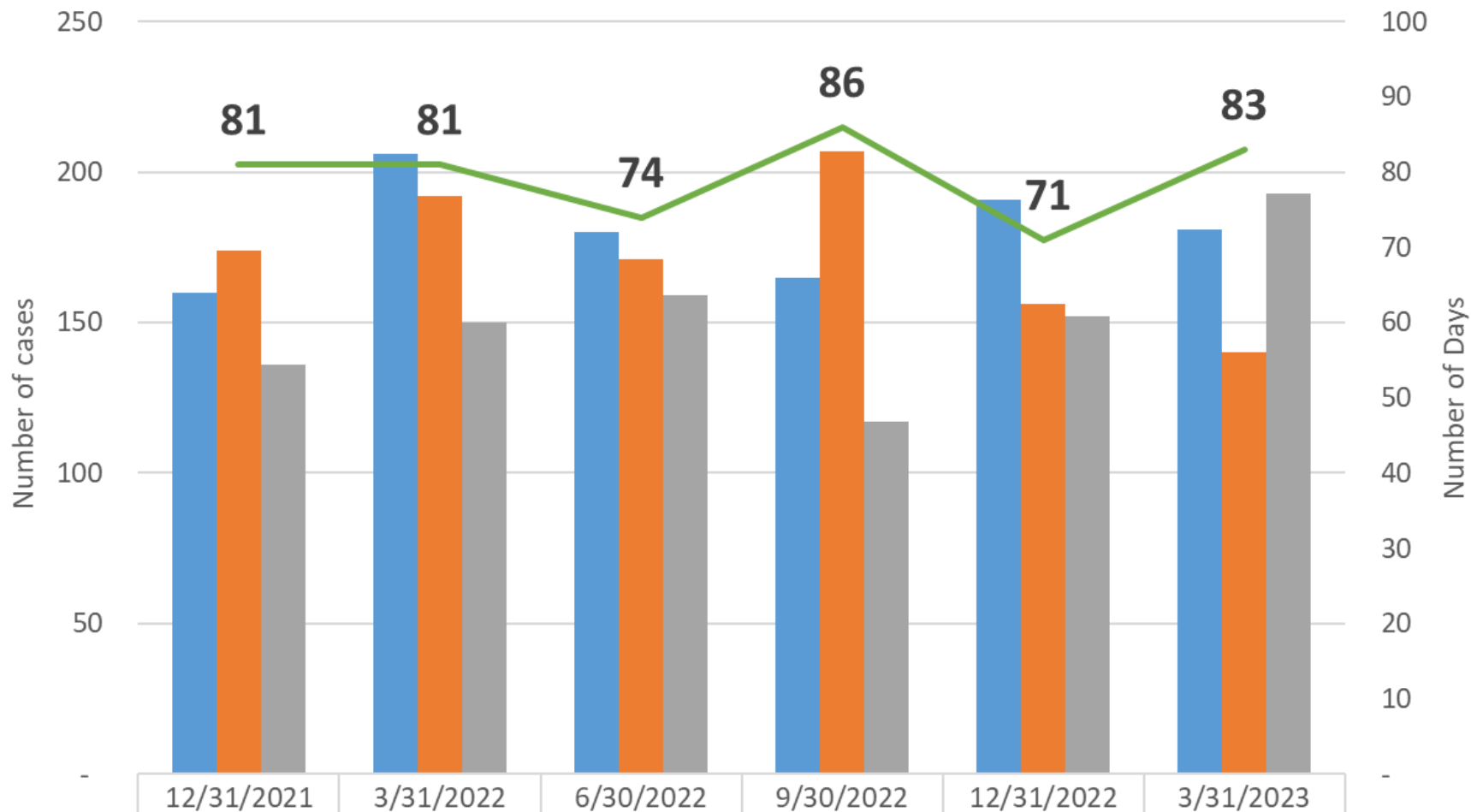
Toxicology



	12/31/2021	3/31/2022	6/30/2022	9/30/2022	12/31/2022	3/31/2023
Cases Received*	2,306	2,379	2,468	2,721	2,336	2,765
Cases Completed	2,587	2,398	2,248	2,694	2,283	2,554
Caseload	1,100	1,081	1,301	1,328	1,381	1,592
Average Days in System	52	47	47	47	53	56



Trace Evidence



Cases Received*	160	206	180	165	191	181
Cases Completed	174	192	171	207	156	140
Caseload	136	150	159	117	152	193
Average Days in System	81	81	74	86	71	83



Budget and Resources



Governor's Introduced Budget

Department of Forensic Science

Operating Budget Summary

Authorized Position Summary

	General Fund	Nongeneral Fund	Personnel Cost	General Fund	Nongeneral Fund	Total Positions
2019 Appropriation	\$45,818,010	\$2,043,270	\$33,962,401	326.00	0.00	326.00
2020 Appropriation	\$50,014,798	\$2,259,770	\$34,918,472	326.00	2.00	328.00
2021 Appropriation	\$52,605,974	\$2,447,593	\$37,320,641	328.00	3.00	331.00
2022 Appropriation	\$53,325,654	\$2,438,930	\$37,737,079	331.00	4.00	335.00
2023 Appropriation	\$56,446,890	\$2,680,488	\$40,028,270	341.00	14.00	355.00
2023 Intro Changes	\$0	\$0	\$0	0.00	0.00	0.00
2023 Total	\$56,446,890	\$2,680,488	\$40,028,270	341.00	14.00	355.00
2024 Appropriation	\$55,639,990	\$2,680,488	\$40,125,846	341.00	14.00	355.00
2024 Intro Changes	\$634,406	\$0	\$524,336	6.00	0.00	6.00
2024 Total	\$56,274,396	\$2,680,488	\$40,650,182	347.00	14.00	361.00

Operating Budget Changes

Introduced Budget Non-Technical Changes

Convert part-time evidence receiving technician position to full-time status

Provides one position and additional funding to convert a part-time evidence receiving technician position to full-time status. These positions maintain the chain of custody for evidence samples that are submitted to the Department.

	<u>2023</u>	<u>2024</u>
General Fund	\$0	\$49,167
Authorized Positions	0.00	1.00

Fund software subscription fees for cell phone investigative tools

Appropriates funding to cover the cost of software used to unlock cell phones that may contain evidence related to criminal investigations.

	<u>2023</u>	<u>2024</u>
General Fund	\$0	\$107,770

Provide general fund support for Physical Evidence Recovery Kit (PERK) coordinator position			
Provides general fund appropriation for a position that supports the agency's PERK tracking software. This position is currently supported by a federal grant that expires on September 30, 2023.	General Fund	<u>2023</u>	<u>2024</u>
		\$0	\$77,585
Provide support for four biologist positions			
Funds four biologist positions to address workload issues in the forensic biology section. These positions screen evidence submitted to the Department for the presence of DNA and perform other preliminary analyses and reporting.	General Fund	<u>2023</u>	<u>2024</u>
	Authorized Positions	\$0	\$314,637
		0.00	4.00
Provide laboratory specialist position to enable agency response to THC legislation			
Provides funding for one forensic laboratory specialist position to address the analysis of tetrahydrocannabinol (THC) edibles, pursuant to potential legislation that may be introduced in the 2023 Session of the General Assembly.	General Fund	<u>2023</u>	<u>2024</u>
	Authorized Positions	\$0	\$85,247
		0.00	1.00



DMV Grant Applications Submitted – Board Approved

FSB Chair and Vice Chair provided permission to apply for two DMV grants. Applications were submitted on February 27, 2023.

1. DFS Breath Alcohol (BA) Section - \$245,084, with an in-kind match requirement of 25%

DFS applied for funding to support reimbursement of travel costs for law enforcement officers traveling for breath alcohol training, continuing education for BA Section staff, and paperless processing for continuity of operations.

2. DFS Toxicology (TX) Section - \$469,753, with an in-kind/cash match requirement of 25%

DFS applied to the TREDIS portion of the DMV Highway Safety Office for funding to support two part-time FLS II positions and six full-time FLS III positions to provide laboratory support and help reduce case turnaround times.

Upcoming Grant Applications – Board Approved



- **BJA FY 2023 Formula DNA Capacity Enhancement for Backlog Reduction (CEBR) Program – application is due on April 26, 2023**

The DFS Forensic Biology Section will apply for funding under this program in the amount of \$1,856,364, which is the amount allocated for Virginia. Funding will provide DNA staffing, continuing education, and supplies and/or equipment related to capacity enhancement and backlog reduction efforts in the Forensic Biology and DNA Data Bank Sections.

Upcoming Grant Applications – Board Approved



- **FY 2023 Paul Coverdell Forensic Science Improvement Grants Program – application is due May 31, 2023**

The Department of Criminal Justice Services will apply for funding under this program on behalf of DFS and the OCME in the amount of \$535,074, which is the amount allocated for Virginia. Funding is typically divided evenly between DFS and the OCME.

DFS will utilize funding for continuing education for non-DNA scientific staff.

Upcoming Grant Applications – Board Approved



- **NIJ FY23 Research and Evaluation for the Testing and Interpretation of Physical Evidence in Publicly Funded Forensic Laboratories - applications due on May 3, 2023 - Biology Research Section for ~ \$159,865.**

Title: *Validating the Biomek i5 Workstation for Integrated Automated Casework Sample Processing and Improved Automated Processing of Sexual Assault Samples*

Goals:

1. To internally validate current automation methods used in the DNA profiling pipeline on the Biomek NXP automation platform and the newly developed automated DNase-based Differential Extraction (DE) protocols for a replacement platform, the Biomek i5 automation workstation
2. Develop and optimize a new resin-based automated DE method, and if superior to the current manual and new DNase-based DE method, validate on the Biomek i5 workstation for integration into sexual assault casework processing

Upcoming Grant Applications – Board Approved



- **NIJ FY23 Research and Evaluation for the Testing and Interpretation of Physical Evidence in Publicly Funded Forensic Laboratories – applications due on May 3, 2023**

The DFS Chemistry Research Section will apply for funding under this program for two projects:

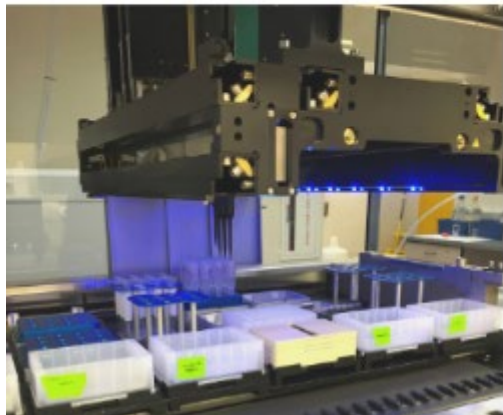
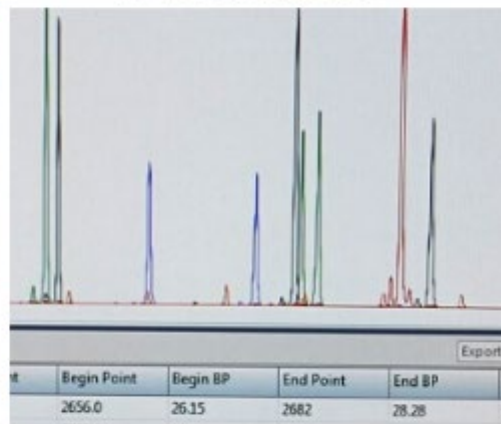
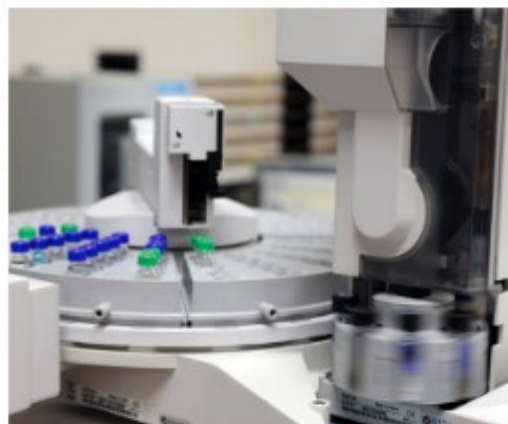
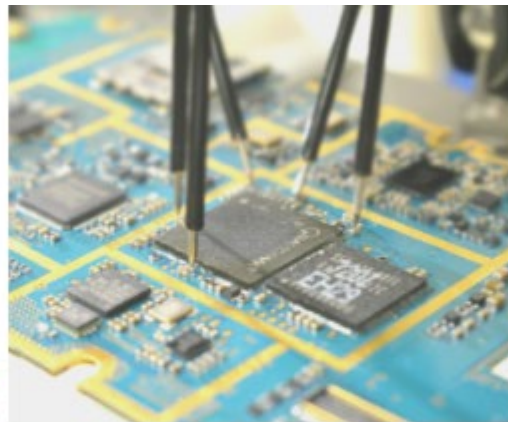
1. Funding will be requested in the amount of ~ \$407,328 for a three-year project, entitled ***New Age Therapeutics: Development and Validation of an Analytical Workflow for the Analysis of Psychedelics in Biological Matrices***, to validate an analytical workflow including screening, confirmation, and quantitation of psychedelic compounds, such as psilocybin, and their metabolites in biological matrices. In addition to traditional validation experiments, extensive stability studies will be performed including long term specimen storage, in progress extraction stability, and extract stability.

Upcoming Grant Applications – Board Approved



- **NIJ FY23 Research and Evaluation for the Testing and Interpretation of Physical Evidence in Publicly Funded Forensic Laboratories – applications due on May 3, 2023**

2. Funding will be requested in the amount of ~ \$354,576.72 for a two-year project, entitled ***Pivoting Headspace Ethanol Analysis to Accommodate Modern Day Scenarios***, to validate two blood ethanol methods using nitrogen and hydrogen as carrier gases. Further, the study will evaluate critical sample preparation parameters including sample dilution for antemortem blood, postmortem blood, vitreous humor, liver, and urine. An evaluation of the effects of vial size, temperature, agitation, and vial pressurization will also be performed.



Thank you!