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The Government of the Hong Kong Special Administrative Region.

Government Laboratory.

Annual Report 2025.

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Page 3, Vision • Mission • Values

Vision

To be recognised internationally as a laboratory providing world-class scientific services.

Mission

To provide our community with quality analytical, forensic, and advisory services, achieved through advancing measurement science and standards by a proud and committed workforce.

Values

Integrity, we act honestly, ethically and impartially at all times.

Professionalism, we encourage self-improvement and aim for scientific excellence.

Quality assurance, we ensure that all our work is carried out in accordance with recognised standards.

Teamwork, we recognise the participation, initiative and cooperation of all our staff as being essential to our success.

Client focus, we strive to recognise and anticipate the needs of clients, working openly and cooperatively in setting work schedules and meeting targets.

Environmental consciousness, we are committed to conducting all our work within the established guidelines for protection of the environment.

Page 4, Foreword

Throughout the year 2025, the Government Laboratory of Hong Kong Special Administrative Region (GL) remained steadfast in our mission to provide world-class analytical and forensic services to various government departments, ensuring the continued well-being and security of the Hong Kong community. Through collaborative efforts of our staff, we completed a total of 205,647 tests on food safety, 203,161 tests on environmental protection, 142,951 tests on drug safety, 76,629 tests on consumer protection, 13,172 tests on public safety, and 33,232 cases on forensic testing. In addition to the routine laboratory testing, GL also provides round-the-clock emergency services to support crime scene investigations and offers professional advice for handling urgent incidents with public health or safety concerns.

In the past year, our laboratory personnel demonstrated professionalism and operational agility in navigating several of the year's most demanding public health and safety crises. Using high-precision analytical protocols, our team successfully identified the causative agents in a series of intricate food poisoning outbreaks involving mushrooms, tuna, and oysters. Furthermore, in the aftermath of the mass disaster, the Tai Po fire, our specialists integrated advanced chemical analysis with systematic scene investigations to elucidate the seat of fire and the fire's progression, while providing urgent DNA examination for victim identification.

To support the implementation of new ordinances and legislative amendments in Hong Kong, GL has proactively developed advanced analytical methods and expanded our service scope. By modernizing our diagnostic capabilities, we ensure stringent monitoring of commonly abused drugs, such as etomidate, alongside food additives, contaminants, pharmaceuticals, and environmental pollutants. This reinforces our essential role in safeguarding public health through precise scientific support.

As a Designated Institute for Metrology in Chemistry, GL remains deeply integrated into the global metrology community through active participation in international comparison programs, pilot studies, and proficiency testing schemes. Locally, we strengthen the technical competency of the testing industry by arranging proficiency test programmes and providing essential support, alongside the continuous production of high-quality reference materials. This commitment to excellence was further demonstrated in 2025 as we expanded our Calibration and Measurement Capability (CMC) claims. By adding 13 new entries, the laboratory has reached a significant milestone of 133 total CMC claims, bolstering our status as a dedicated contributor in measurement science.

Looking ahead, GL is entering a period of transformative change. By equipping our newly commissioned satellite laboratories with cutting-edge instrumentation, we are significantly enhancing our analytical precision and output. These advancements are vital to our future

development, enabling us to broaden our operational scope and provide world-class services. Ultimately, this expansion reinforces our mission to serve as a definitive pillar of public safety and security for the people of Hong Kong.

Dr. CHEUNG Tsz-chun

Government Chemist

September 2026

Page 5, Workforce

The Government Laboratory houses two operational divisions, namely the Analytical & Advisory Services Division and the Forensic Science Division. These two divisions are further divided into different groups of sections according to the services provided to client departments.

The Administration Division provides administrative and clerical support to the Laboratory.

As at December 2025, we had an establishment of 507 staff, comprising 7 directorate staff, 145 professional staff (118 with PhD degree), 300 technical staff (99 with Master's degree and 124 with Bachelor's degree) and 55 administrative and supporting staff. Apart from an establishment of 507 staff members of the Government Laboratory, 72 staff members were on secondment to other departments.

Page 6, Locations

Ho Man Tin Government Offices has been the headquarters of the Government Laboratory since 1992. With the continuous increase in the variety of services provided by the Government Laboratory and staff expansion, apart from Homantin headquarters, 7 satellite laboratories have been established at different locations in Hong Kong.

Laboratory locations are as follows:

Headquarters: Ho Man Tin Government Offices, Ho Man Tin, Kowloon.

Seven satellite laboratories include:

- (1). Lai Chi Kok Government Offices, Lai Chi Kok, Kowloon;
- (2). Public Health Laboratory Centre, Shek Kip Mei, Kowloon;
- (3). Hong Kong Science Park, Sha Tin, New Territories;
- (4). Public Works Central Laboratory Building, Kowloon Bay, Kowloon;
- (5). King's Park Meteorological Station, Ho Man Tin, Kowloon;
- (6). Food Safety Laboratory, Pok Fu Lam, Hong Kong; and
- (7). Laboratory at Cheung Sha Wan, Kowloon.

Page 7, Organisation Chart

There are two operational divisions of the Government Laboratory, namely the Analytical & Advisory Services Division and the Forensic Science Division. Administrative Support is provided by the Administration Division.

The Analytical & Advisory Services Division presently consists of two functional Groups, each comprising a number of specialist Sections. The two Groups are: Food Safety and Quality Group and Other Scientific Services Group. The Food Safety and Quality Group comprises the following 7 Sections: Additives, Contaminants and Composition Section, Food Complaints Section, Outsourcing Management Section, Quality Management Section, Residues Section, Strategic Development Section and Trace Elements Section. The Other Scientific Services Group consists of the following 9 Sections: Chemical Safety Section, Chinese Medicines Section, Chinese Materia Medica Chemistry Section, Environmental Chemistry A Section, Environmental Chemistry B Section, Pharmaceutical Chemistry Section, Pharmaceutical Quality and Investigation Section, Product Testing and Dutiable Commodities Section and Trade Descriptions Section.

The Forensic Science Division comprises two Groups viz. the Criminalistics and Quality Management Group and the Drugs, Toxicology and Documents Group. The Criminalistics and Quality Management Group comprises 6 operational sections: Biochemical Sciences A Section, Biochemical Sciences B Section, Chemical Sciences Section, DNA Database and Parentage Testing Section, Physical Sciences Section and Scene of Crime and Quality Management Section. The Drugs, Toxicology and Documents Group comprises 5 sections: Controlled Drugs A Section, Controlled Drugs B Section, Forensic Toxicology A Section, Forensic Toxicology B Section and Questioned Documents Section.

Page 8, Our Recognition

Involvement in External Committees

Statutory Bodies

(1) Chinese Medicine Council of Hong Kong

- Chinese Medicines Board; and
- Chinese Medicines Committee.

(2) Occupational Safety and Health Council

- Chemical Safety and Health Advisory Committee;
- Research Committee,, and
- Finance and Administration Committee.

(3) Pharmacy and Poisons Board of Hong Kong

- Poisons Committee;
- Examination Committee;
- Postgraduate Pharmacy Training and Development Committee;
- Pharmacy and Poisons (Manufacturers Licensing) Committee; and
- Pharmacy and Poisons (Registration of Pharmaceutical Products and Substances) Committee.

Involvement in External Committees

Non-Statutory Bodies

- (1) Department of Health/Hospital Authority/The Chinese University of Hong Kong
 - Coordinating Committee Meeting of Hong Kong Poison Control Network (HKPCN).
- (2) Environment and Ecology Bureau
 - Inter-departmental Task Force on Phasing Down the Use of Hydrofluorocarbons; and
 - Task Force on Emergency Response to Marine Environmental Incidents (TFER).
- (3) Food and Environmental Hygiene Department (Centre for Food Safety)
 - Task Force on Standard Setting for Veterinary Drug Residues in Food; and
 - Working Group on Amendment to Harmful Substances in Food Regulations.
- (4) Fire Services Department
 - Dangerous Goods Standing Committee.
- (5) Government Chinese Medicines Testing Institute (G C M T I)
 - Advisory Committee.
- (6) Security Bureau
 - Research Advisory Group (R A G) under Narcotics Division; and
 - Standing Chemical, Biological, Radiological and Nuclear Planning Group (SRPG).
- (7) Hong Kong Accreditation Service (HKAS)
 - Accreditation Advisory Board (A A B);
 - Working Party on Strategic Development and Policy;
 - Working Party on Proficiency Testing Providers & Reference Material Producers;
 - Working Party for Biological & Chemical Testing;
 - Working Party for Forensic Testing;
 - Working Party for Accreditation of Inspection Bodies;
 - Task Force on Gemstone Testing;
 - Task Force on Crime Scene Investigation; and
 - Task Force on Polymerase Chain Reaction (PCR) Testing.

(8) Hong Kong Chinese Materia Medica Standards (HKCMMS)

- International Advisory Board (IAB); and
- Scientific Committee.

(9) Hong Kong Council for Testing and Certification (HKCTC)

- Official Member of the Council.

(10) Hong Kong Observatory (HKO)

- All-partners meeting for Science in the Public Service (S I P S).

Involvement in External Committees

International Bodies

(1) Asian Forensic Sciences Network

- Crime Scene Investigation Workgroup (C S I W G);
- Digital Forensic Workgroup (DFWG);
- Illicit Drugs Workgroup (IDWG);
- Questioned Documents Workgroup (QDWG);
- Toxicology Workgroup (TXWG);
- Trace Evidence Workgroup (TEWG); and
- Traffic Accident Reconstruction Workgroup (T A R W G).

(2) Asia-Pacific Metrology Programme (APMP)

- Clean Water Focus Group (CWFG);
- Developing Economies' Committee (D E C);
- Food Safety Focus Group (FSFG);
- Technical Committee for Amount of Substance (TCQM);
 - TCQM Inorganic and Electrochemical Analyses Sub-Committee; and
- Technical Committee for Quality System (TCQS).

(3) Cooperation on International Traceability in Analytical Chemistry (CITAC)

- CITAC Working Group.

(4) Interpol

- Interpol International Forensic Science Managers Symposium Organising Committee.

(5) World Health Organisation (W H O)

- Tobacco Laboratory Network (TobLabNet).

Involvement in External Committees

International Bodies

(6) International Committee for Weights and Measures (CIPM) - Consultative Committee for Amount of Substance: Metrology in Chemistry and Biology (CCQM)

- Strategic Planning Working Group (SPWG);
- Working Group on Inorganic Analysis (IAWG);
- Working Group on Organic Analysis (OAWG);
 - OAWG Advances in Measurement Methods Task Group;
 - OAWG Environmental Task Group;
 - OAWG Food Sector Task Group;
- Working Group on Key Comparisons and CMC Quality (KCWG);
- Working Group on Nucleic Acid Analysis (NAWG);
- Working Group on Protein Analysis (PAWG); and
 - PAWG Task Group 2.

(7) International Organization for Standardization (ISO)

- ISO/TC34 Food Products Technical Committee;
- ISO/TC61 Plastics Technical Committee;
- ISO/TC126 Tobacco and Tobacco Products Technical Committee;
- ISO/TC147 Water Quality Technical Committee;
- ISO/TC174 Jewellery and Precious Metals Technical Committee;
- ISO/TC181 Safety of Toys Technical Committee;
- ISO/TC249 Traditional Medicine Technical Committee;
- ISO/TC276 Biotechnology Technical Committee;
- ISO/TC310 Child Care Articles Technical Committee;
- ISO/TC334 Reference Materials Technical Committee; and
- ISO/CASCO Committee on Conformity Assessment.

Page 12, Analytical & Advisory Services

We are committed to provide high quality testing and advisory services in food safety, environmental protection, public health and safety, as well as protection of government revenue and consumer interests.

Page 13, Food Safety and Environmental Hygiene

The Government Laboratory has all along endeavoured to provide quality testing and investigation services to ensure food safety and environmental hygiene in Hong Kong. Comprehensive analytical services are provided to the Agriculture, Fisheries and Conservation Department and the Food and Environmental Hygiene Department (FEHD) in support of the enforcement of various pertinent regulations under the Public Health and Municipal Services Ordinance (Cap. 132), the Pesticides Ordinance (Cap. 133) and the Public Health (Animals and Birds) Ordinance (Cap. 139).

The Government Laboratory also provides testing services to support the Centre for Food Safety of the FEHD in implementing the food surveillance programme, as well as handling food incidents. The scope of chemical analyses covers food additives and composition, contaminants, pesticide and veterinary drug residues.

Work statistics

Food samples

- The Government Laboratory completed a total of 196,467 tests on a wide range of food samples. 99% of the samples were completed within reporting time averaging 19 working days.
- Breakdown percentages of the number of tests conducted are as follows:
 - 52% on pesticide and veterinary drug residues;
 - 27% on food additives and composition; and
 - 21% on contaminants.

Urgent analytical services

- In addition to routine monitoring work, the Government Laboratory also rendered urgent analytical support to the handling of various food incidents, encompassing the analyses for toxins in mushroom; preservatives, antioxidants, metallic contaminants, colouring matter and tetrahydrocannabinol in candies; histamine in tuna; metallic contaminants in bottled drinking water; diarrhoeic shellfish toxins in oyster; preservatives, metallic contaminants and veterinary drug residues in meat and aquatic products; sulphur dioxide and boric acid in beef; and preservatives in biscuit sticks.
- 765 tests were conducted for urgent samples relating to food incidents. 100% of the samples were completed within 2 working days.

Food complaints

- There were 8,415 tests conducted for food deterioration and investigation cases. 100% of the cases were completed within 25 working days.

Seepage and swimming pool water samples

- There were 86,223 tests conducted for seepage and swimming pool water samples. 100% of the samples were completed within 10 working days.

Professional advice

- Professional advice was also provided to a total of 5 requests on analytical methods and nomenclature in relation to the active ingredients of registered pesticide formulations in the year.

Page 16, Environmental Protection

The Government Laboratory provides comprehensive analytical and advisory services to the Environmental Protection Department in improving the environmental quality and in enforcing various pollution control-related legislations such as the Air Pollution Control Ordinance (Cap. 311), the Waste Disposal Ordinance (Cap. 354), the Water Pollution Control Ordinance (Cap. 358), the Ozone Layer Protection Ordinance (Cap. 403), the Hazardous Chemicals Control Ordinance (Cap. 595), etc.

Environmental samples such as air, water, sediment, biota and waste are submitted for analyses pertaining to various environmental programmes and illegal discharge investigations. Testing of materials for presence of asbestos, as well as analyses of diesel, biodiesel, unleaded petrol and marine fuel are also part of our statutory functions.

Analytical services relating to environmental monitoring are also provided to the Agriculture, Fisheries and Conservation Department, the Electrical and Mechanical Services Department, the Food and Environmental Hygiene Department, and the Leisure and Cultural Services Department. Technical support is rendered to the Marine Department in the identification of the sources of oil spills in the enforcement of the Shipping and Port Control Ordinance (Cap. 313).

The Government Laboratory had achieved all the work targets set in 2025 related to environmental protection.

Work statistics

Air samples

(including air samples and air pollution control samples, such as fuel oil and consumer goods containing volatile organic compounds (V O Cs))

- 61,828 tests were performed on monitoring samples. 99% of the tests were completed within reporting time averaging 20 working days.
- 3,255 tests were performed on litigation samples. 100% of the tests were completed within reporting time averaging 18 working days.
- 428 tests were performed on field investigation (air pollution) samples. 100% of the tests were completed within reporting time averaging 12 working days.

Environmental waste samples

(including wastewater, leachates, livestock waste, chemical wastes and miscellaneous solid wastes)

- 10,092 tests were performed on monitoring samples. 99% of the tests were completed within reporting time averaging 27 working days.
- 367 tests were performed on litigation samples. 100% of the tests were completed within reporting time averaging 12 working days.

Water monitoring samples

(including river water, marine water, sediment and biota)

- 127,191 tests covering more than 100 different pollutants including various nutrients, trace metals and organic compounds were conducted. 99% of the tests were completed within the reporting time averaging 20 working days.

Page 18, Consumer Protection

The Government Laboratory provides analytical and advisory support to the Customs and Excise Department (C&ED) and other government departments in the enforcement of legislations concerning consumer protection. Analytical services are provided to support their statutory functions under various regulations and ordinances such as the Weights and Measures Ordinance (Cap. 68), the Dutiable Commodities Ordinance (Cap. 109), the Trade Descriptions Ordinance (Cap. 362), the Toys and Children's Products Safety Ordinance (Cap. 424) and the Consumer Goods Safety Ordinance (Cap. 456).

Our scientific services cover a large variety of products including cigarettes, toys and children's products, consumer goods, dutiable commodities and miscellaneous commodities. Besides, suspected counterfeit goods samples are also submitted for authenticity testing.

Work statistics

Trade descriptions

- 4,912 tests across a diverse range of commodities were conducted to evaluate compliance with labelled claim and verify authenticity, thereby supporting the enforcement of the Trade Descriptions Ordinance (Cap. 362).
- Samples of consumer goods submitted for assessment of labelled claim included travel mug, prepackaged products, and health supplements.
- Testing on authenticity encompassed a broad spectrum of trading goods, including seafood, and products derived from both plant and animal origins.

Consumer goods

- A total of 12,490 compliance tests were conducted in accordance with the statutory general safety requirements of the Consumer Goods Safety Ordinance (Cap. 456).
- A wide variety of samples, including festive items for Lunar New Year and Christmas, toothbrushes, clothing, hot water bottles, student theme-based products, stainless steel frying pan, food containers and cosmetics such as facial mask, body lotion, shampoo, hair dye, make-up remover, deodorant and body wash products, were submitted.
- We worked closely with the C&ED to follow up cases of public concern, e.g. clay face masks, children's leather shoes and children's raincoats published by the CHOICE Magazine.

Toys and children's products

- 21,650 tests for phthalates contents and safety requirements stipulated in the standards under relevant Ordinances were conducted.
- Test items included festive toys, squeeze toys, projectile toys, educational toys, beach toys, transportation toys, sound-producing toys, plastic dolls, soother holders, children's cots for domestic use, children's paints, children's high chairs for domestic use, feeding bottles, bottle teats, etc.

Miscellaneous commodities

- A total of 130 tests were conducted to assess the integrity of flexible gas tubing in compliance with the requirement of the Gas Safety Ordinance (Cap. 51).
- We also received ad hoc samples for analysing the gaseous composition of liquified petroleum gas.
- 1,092 tests on various items, including gold medals and safety net were conducted.

Smoking products

- 94 brands of best-selling cigarettes available on the local market were examined. Their tar and nicotine yields were published on GL website for public browsing.
- 17,476 tests on alternative smoking products, including electronic smoking products, heated tobacco products, and herbal cigarettes were conducted.
- 80 tests on various other tobacco products were conducted.

Investigation samples

- 881 tests on strategic commodities and valuable articles, including gold, for investigation cases under the Import and Export Ordinance (Cap. 60) were conducted.
- 37 tests were conducted to investigate suspected short weights of goods.

Dutiable commodities

- 1,570 tests on hydrocarbon oils and 2,046 tests on liquors were conducted.

Page 21, Drug Quality

The Government Laboratory (GL) works closely with the Department of Health, the Hospital Authority and the Customs and Excise Department to safeguard public health and support the enforcement of the Import and Export Ordinance (Cap. 60), the Antibiotics Ordinance (Cap. 137), the Pharmacy and Poisons Ordinance (Cap. 138) and the Chinese Medicine Ordinance (Cap. 549).

The Government Laboratory's professional services on pharmaceutical analyses mainly provide support to (1) the routine market surveillance programme for monitoring the quality of the local registered pharmaceutical products; (2) the investigatory programme for complaint cases, illegal sales (including via the internet) and possession of suspected regulated drug substances; (3) the general quality control programme for government procurement exercises on pharmaceutical products; and (4) the routine surveillance programme for testing drug adulteration in health products.

Routine analyses for Chinese medicines include (1) the testing of Chinese herbal medicines (Chms) and proprietary Chinese medicines (pCms) for heavy metals, toxic elements and pesticide residues; (2) drug adulteration in pCms; and (3) aflatoxins and sulphur dioxide residues in Chms. Apart from providing analytical support in the chemical markers identification testing for suspected unregistered pCms, GL also offers full support for urgent investigatory analyses of samples from cases relating to adverse reactions arising from the consumption of pCms containing undeclared drug ingredients, and from poisoning incidents related to erroneous substitution or contamination of Chinese medicines.

In addition, GL continues to provide analytical and advisory support for the development of Hong Kong Chinese Materia Medica Standards (HKCMMS) through conducting method verification and trial run studies.

Work statistics

Pharmaceutical samples

- In 2025, 97 tests were conducted for urgent samples in relating to pharmaceutical incidents. 100% of the samples were completed within 2 working days.
- 53,389 tests were conducted for other pharmaceutical samples. 98% of the samples were completed within reporting time averaging 25 working days.

Chinese medicine samples

- 46 tests were conducted for urgent samples in relating to Chinese medicine incidents. 100% of the samples were completed within 2 working days.
- 89,419 tests were conducted for other Chinese medicine samples. 99% of the samples were completed within reporting time averaging 30 working days.

Page 23, Public Safety

To support the Government in ensuring public safety, the Government Laboratory is entrusted with the statutory role of providing analytical and advisory services. The scope of services includes providing analytical and advisory services for the Fire Services Department and other government departments in the classification of dangerous goods (DG) and on matters relating to occupational safety and health; providing 24-hour emergency response service to support the Fire Services Department in handling of chemical incidents; collaborating with the Hong Kong Observatory (HKO) in Environmental Radiation Monitoring Programme; rendering analytical support to the FEHD in the surveillance of radioactive contamination of imported foodstuff; providing technical support to the Daya Bay Contingency Plan (DBCP) and the Contingency Plan for Public Safety During visits by Nuclear Powered Warships (PORTSAFE) in Hong Kong; providing technical support for the implementation of the Chemical Weapons Convention (CWC) in the Hong Kong Special Administrative Region; and providing professional services to the Trade & Industry Department (TID) and the Customs and Excise Department (C&ED) in the enforcement of the relevant local legislation in the control of import and export of strategic commodities.

Work statistics

Radioactivity measurement

- In 2025, 3,716 tests on sample pre-treatment for radioactivity measurement for the HKO were conducted.
- 24 radioactive contamination tests on treated leachate from the Environmental Protection Department (EPD) were conducted.
- 986 radioactive contamination tests on imported food samples under the FEHD food surveillance programme were conducted.
- 99% of the tests were completed within reporting time averaging 12 working days.

None of the food samples tested was found to exceed the guideline levels stipulated in the Codex Alimentarius Commission for cross-border trade of foodstuffs in respect of 3 major gamma-emitting radionuclides, namely I-131, Cs-134 and Cs-137.

Dangerous goods

- 5,337 tests on the classification of dangerous goods under the Dangerous Goods Ordinance (Cap. 295) and its subsidiary regulations were conducted.
- 100% of the tests on dangerous goods were completed within reporting time averaging 14 working days.

Occupational safety and health

- 3,109 tests on 295 samples taken by the Labour Department and the Hong Kong Police Force (HKPF) were conducted.

Advisory services

Apart from testing services, the Government Laboratory also provides advisory services to client departments in support of law enforcement.

- Professional advice on 77 items relating to classification under the Dangerous Goods Ordinance (Cap. 295) were provided.
- Professional advice on 1,035 items pertaining to the implementation of the Import and Export (Strategic Commodities) Regulations (Cap. 60G) and the Chemical Weapons (Convention) Ordinance (Cap. 578) was also provided.

Special Issue

Inter-departmental CBRN drill

On 30 May 2025, the Government Laboratory participated in an Inter-departmental Chemical, Biological, Radiological and Nuclear (CBRN) incident drill organized by the Fire Services Department, codenamed 'Mist Guard' at Pak Kong Water Treatment Works, Sai Kung, in collaboration with the Hong Kong Police Force, Water Supplies Department, Home Affairs Department, Civil Aid Service and Hospital Authority. The exercise simulated a chlorine gas leakage during the plant's open day. Our Emergency Response Team members attended the scene and were responsible for providing professional advice on safety precaution of the leaked chemical. On-site assessment was also conducted by handheld equipment to verify that the affected area was properly decontaminated and safe for re-open.

Page 27, Forensic Science Services

We are dedicated to providing impartial, accurate and efficient forensic scientific services to the Criminal Justice System in Hong Kong.

Page 28, 24-Hour Scene of Crime and Laboratory Examination Services

The Government Laboratory (GL) is dedicated to providing first-class crime scene investigation (CSI) services to law enforcement agencies in Hong Kong. Our experienced Laboratory Specialist Services Officers (Scientific Evidence) and chemists across different disciplines provide 24/7 services to identify, preserve, and recover evidence of forensic value. Apart from scene processing, our specialists are responsible for analysing forensic data, reconstructing sequence of events at scene, and providing expert testimony in judiciary proceedings.

In addition to general CSI, the GL also provides scene investigation services in four specialized areas, namely Fire Investigation to determine the cause and course of suspicious fires; Traffic Accident Reconstruction to assist in deciphering the possible cause of road traffic accidents; Bloodstain Pattern Analysis of serious crime scenes such as murder and serious wounding cases to assist in reconstructing possible events that had occurred at the crime scene; and investigation of illicit drug manufacturing/cannabis cultivation activities. For complex cases requiring multifaceted expertise, a comprehensive team with scene officers for general crime scenes and professional specialists will conduct joint scene investigations. In 2025, scene of crime officers assisted in collecting and preserving forensic evidence for two major cases, namely an aircraft accident scene and a serious fire scene using 3D laser scanning technology.

The GL also maintains round-the-clock laboratory examination services for high-priority cases. This ensures that law enforcement receives the imperative scientific evidence needed for both immediate criminal investigations and preliminary court proceedings. In 2025, the GL provided round-the-clock laboratory examination services for law enforcement agencies on 23 incidents.

Work statistics

In 2025, scene of crime officers attended a total of 416 crime scenes comprising

- 160 general crime scenes;
- 13 scenes with bloodstain pattern analysis;
- 174 traffic accident and vehicle-related scenes;
- 16 fire scenes; and
- 53 illicit drug-related scenes.

Page 30, Forensic DNA Examination

Our Forensic DNA experts are dedicated to providing quality DNA testing services to the Hong Kong Police Force (HKPF) and other law enforcement agencies in conducting scientific analysis during criminal investigations.

Our chemists are responsible for examining biological evidence collected from crime scenes and using advanced DNA technology to analyse the DNA results with the aim to identifying the individuals involved in the crime cases. In addition, 24-hour on-site bloodstain pattern analysis service is available to assist the HKPF in analysing the crime scene.

The DNA Database Unit of the Government Laboratory (GL) operates and maintains a comprehensive DNA database under the authority of the Commissioner of Police. This database contains DNA profiles of convicted offenders and suspects of serious criminal activities. DNA samples collected from crime scene evidence are systematically added to the database, enabling ongoing cross-referencing to identify potential suspects. Since its establishment in 2000, the database has facilitated numerous matches between crime scene DNA profiles and known DNA profiles, leading to significant breakthroughs in previously unsolved cases through subsequent investigations by law enforcement agencies.

Since its establishment in 2000, the Parentage Testing Unit of GL has been providing specialized DNA analysis services to support the Immigration Department. These services play a crucial role in verifying familial relationships for applicants seeking the Certificate of Entitlement to the Right of Abode in the Hong Kong Special Administrative Region.

Work statistics

Biochemical Sciences

In 2025, the GL examined a total of 2,214 non-complicated and complicated cases. As compared with the figures in 2024, the number of cases examined had increased by about 1.8%. 98% of complicated cases were completed within 130 working days and 98% of non-complicated cases were completed within 60 working days.

There were 14,965 exhibit items examined for biological evidence, which was an increase of about 1.7% compared with the 2024 statistics.

In addition, the GL also provided 19 times of round-the-clock testing service for law enforcement departments with preliminary findings made available within 3 days.

DNA Database

The use of the database resulted in 435 pairs of matches between crime scene exhibits and offenders/suspects, and 98 pairs of matches among the crime scene exhibits themselves.

In 2025, the GL examined 2,881 cases. As compared with the figures in 2024, the number of cases examined had increased by about 8.3%. 95% of the cases were completed within 22 working days.

By the end of 2025, the number of relevant DNA data stored in the database was 65,684. In addition, the GL also provided 4 times of round-the-clock testing service for law enforcement departments with preliminary findings made available within 3 days.

Parentage Testing

The Government Laboratory provided DNA testing services in connection with the Certificate of Entitlement (CoE) applications pursuant to the Immigration (Amendment) Ordinance 2001.

In 2025, the GL examined 2,696 cases. As compared with the figures in 2024, the number of cases examined had increased by about 13.5%. 97% of the cases were completed within 22 working days.

Page 34, Criminalistics – Contact and Physical Evidence

The Government Laboratory (GL) provides services on the examination of trace evidence, such as textile fibres, paint, glass, ignitable liquids and explosive residues, and miscellaneous chemical investigation. Trace evidence examination and miscellaneous chemical investigation frequently play an important part in the evidence produced in crime investigation and subsequent legal proceedings.

Fire investigation and traffic accident investigation are currently included under GL's 24-hour services. The former is to determine the origin, cause, and development of a fire or explosion. It involves multiple disciplines including fire chemistry, fire dynamic, knowledge of building systems, scene investigation techniques, chemical analysis and various analysis tools. The latter is to assist the police in the reconstruction of the traffic accident.

Physical examination services provided by GL include traffic accident reconstruction (TAR), forensic video analysis (FVA), tyre examination, vehicle number restoration, forgery and counterfeit items and cases involving marks and impressions evidence. The latter can help associate physical contact of objects such as tools and shoes with toolmarks and shoeprints recovered at the scene of crime.

TAR involves the application of various scientific disciplines including mathematics, physics, automotive engineering, video analysis and scene investigation in deciphering possible cause of road traffic accidents. Examination of failed tyres often provides useful information in determining whether their deflation is the cause or consequence of the accident. Vehicle number restoration entails the discovery and retrieval of numbers unique to the vehicles concerned as a means of detecting unauthorized vehicle-taking or modification.

FVA involves the analysis of digital evidence pertaining to video footage or images having captured events related to a crime. It utilizes advanced video analysis and image processing software to extract/analyse relevant information from the digital evidence. Subsequent image comparison between the image of an object in the footage and the control images of the corresponding seized exhibits could serve as valuable evidence for criminal investigation or court proceeding purposes.

Work statistics

Chemical Sciences

The GL examined a total of 502 cases involving 3,065 exhibit items in relation to trace evidence, fire investigation and miscellaneous chemical investigation in 2025. As compared with the figures in 2024, there was a decrease of about 10% and 7 % in the number of completed cases and the number of exhibit items examined, respectively.

- For fire investigation, 17 cases involving 241 exhibit items were examined. 100% of the cases were completed within 88 working days.
- For trace evidence investigation, 282 cases involving 1,750 exhibit items were examined. 99% of the cases were completed within 66 working days.
- For miscellaneous chemical investigation, 203 cases involving 1,074 exhibit items were examined. 100% of the cases were completed within 33 working days.

Our fire investigation team had joined investigation of the major fire incident in Tai Po in late November 2025. The team conducted forensic investigation at the scene professionally to establish the origin, cause, and development of the fire.

Physical Sciences

The GL examined a total of 795 cases involving 1,647 exhibit items in relation to traffic accident reconstruction (TAR), marks and impressions evidence examination, forensic video analysis (FVA) and miscellaneous physical investigation in 2025. As compared with the figures in 2024, there was an increase of about 5% in the total number of completed cases and a decrease of about 10 % in the number of exhibit items examined, respectively.

- For forensic video analysis, 11 cases involving 24 exhibit items were examined. 100% of the cases were completed within 88 working days.
- For marks and impressions evidence examination, 125 cases involving 402 exhibit items were examined. 94% of the cases were completed within 66 working days.
- For traffic accident reconstruction, 379 cases involving 502 exhibit items were examined. 92% of the cases were completed within 66 working days.
- For miscellaneous physical investigation, 280 cases involving 719 exhibit items were examined. 94% of the cases were completed within 33 working days.

Special Issue

Inter-departmental Counter Terrorism Exercise

The Counter Terrorism Exercise, codenamed 'BRAVELIGHT', organized by the Inter-departmental Counter Terrorism Unit (ICTU) was held on 28 August 2025 at the Kai Tak Cruise Terminal. The Government Laboratory (GL) joined other ICTU member departments in the exercise. Chemists of GL were responsible for conducting investigations and collecting on-site evidence. By making use of professional equipment, including portable Raman spectrometer and multiple light sources device, preliminary detection and identification of suspicious chemicals were efficiently conducted. Counter-terrorism is an important component of national security. This large-scale exercise enables GL to further strengthen its collaboration with relevant departments in counter-terrorism capability.

Fatal Aircraft Accident at the Hong Kong Airport

In October 2025, chemists of the Government Laboratory assisted in the investigation of a fatal aircraft accident occurred at the Hong Kong International Airport in which a freighter collided with a stationary ground vehicle patrolling near the airport perimeter road. The course of the collision was established through comprehensive forensic scene examination.

Page 39, Controlled Drugs

The Government Laboratory strives to provide comprehensive analytical services for enforcing the control of drugs and their chemical precursors involved in the contravention of the Dangerous Drugs Ordinance (Cap. 134), the Pharmacy and Poisons Ordinance (Cap. 138), the Antibiotics Ordinance (Cap. 137), and the Control of Chemicals Ordinance (Cap. 145). These services are mainly provided to the Hong Kong Police Force and the Customs & Excise Department as well as other law enforcement departments.

Work statistics

Drugs cases analyzed

In 2025, the GL examined 4,301 drug cases involving 37,857 samples. As compared with the figures in 2024, there was an increase of about 26% and 13 % in the number of completed cases and the number of samples examined, respectively.

- For illicit drug seizures, 92% of the cases were completed within 11 working days.
- For major illicit drug seizures and manufacturing, 84% of the cases were completed within 44 working days.
- For other illegal drug activities, 92% of the cases were completed within 120 working days.

Scene visits

In 2025, the Government Laboratory attended 53 illicit drug manufacturing/cultivation scenes, which is comparable to the 56 scenes attended in 2024. Most of the scene visits in 2025 were related to cocaine and etomidate-related manufacturing scenes while the rest involved cannabis cultivation and manufacturing of other drugs including methamphetamine and THC oil.

Drugs abuse

The GL provided statistical figures from the results of examined case exhibits to relevant policy bureau and law enforcement departments for reference when monitoring trends of drug abuse in Hong Kong.

Among the number of cases examined in 2025, etomidate and its analogues became the most common drug of abuse representing about 23% of the total cases; followed by cocaine, cannabis, ketamine, methamphetamine hydrochloride ("ICE"), and heroin which accounted for about 20%, 19%, 11%, 11% and 5% respectively. As compared with the figures of 25%, 24%, 14%, 15% and 8% of the total cases respectively obtained for the same 5 drugs in 2024, all the 5 drugs encountered a decrease in proportion of cases.

According to the examination results, the monthly average purity of the controlled drugs in 2025 and 2024 were compared as follows:

- 74% to 84% for cocaine as compared with 76% to 81% in 2024.
- 84% to 100% for "Ice" as compared with 92% to 100% in 2024.
- 74% to 85% for ketamine as compared with 74% to 83% in 2024.
- 74% to 82% for heroin as compared with 72% to 83% in 2024.

Development and Professional advice

In response to the trends of continual emergence of new psychoactive substances, including etomidate and its analogues, and the implementation of legislative amendments in relation to drug control, GL has long been striving to develop new analytical methods for new drugs identification as well as quantification.

In addition, GL will continue to offer professional advice to the policy bureau in relation to the legislation amendments for the control of abused drugs.

Page 42, Forensic Toxicology

Forensic toxicology services encompass five operational areas:

Analytical Toxicology Service

Biological specimens from the deceased, suspects or victims as well as relevant exhibits seized at death or crime scenes are examined for drugs and poisons to assist the judiciary, coroners, pathologists and the Hong Kong Police Force (HKPF) in death inquiries and criminal investigations.

Drink Driving/Boating Analytical Service

Alcohol concentrations in the blood and urine samples of suspects are determined so as to assist the HKPF or Marine Department to take enforcement action in accordance with drink driving/boating offences in the Road Traffic Ordinance (Cap. 374) and the Marine Safety (Alcohol and Drugs) Ordinance (Cap. 649).

Drug Driving/Boating Analytical Service

Blood and urine samples of suspects are examined for the presence of drugs (including the six types of scheduled "Specified Illicit Drugs" in the Law) so as to assist the HKPF or Marine Department to take enforcement action in accordance with drug driving/boating offences in the Road Traffic Ordinance (Cap. 374) and the Marine Safety (Alcohol and Drugs) Ordinance (Cap. 649).

Urine Drug Testing Service

Drugs of abuse are examined in urine samples collected by the Social Welfare Department, the Correctional Services Department, the Methadone Clinics of the Department of Health, the HKPF (under the Superintendent Discretion Scheme, Integrity Audit Action Group Drug Test Scheme, and urine drug tests for recruitment) and the Immigration Department, as well as the non-government organisations in collaboration with schools (under the Healthy School Programme of the Narcotics Division) in their respective drug use surveillance programmes.

Hair Drug Testing Service

Drugs of abuse are examined in hair samples collected by non-government organisations in collaboration with schools under the Healthy School Programme of the Narcotics Division.

New Services to Clients

The Marine Safety (Alcohol and Drugs) Ordinance (Cap. 649) came into effect on 1 January 2025, and the Government Laboratory has been providing alcohol/drug in blood/urine analytical services to the enforcement agencies concerned.

Work statistics

Analytical Toxicology Service

A total of 2,263 cases involving 10,267 samples were examined for analytical toxicology this year, with 89% of the cases completed within 33 working days. Compared to 2024, there was an increase of about 2% in the total number of cases and 1% in the number of samples.

The majority of cases were submitted from the Forensic Pathology Service, contributing 1,699 cases and 7,842 samples, representing 75% and 76% of the total cases and samples, respectively. The remaining cases mainly came from the Hong Kong Police Force, accounting for 403 cases and 1,815 samples, which represent 18% of both total cases and samples.

Amongst the cases examined in 2025, about 66% were found to contain drugs or poisons.

Drink driving/Boating Analytical Service

The GL handled a total of 60 relevant cases in 2025, with an increase of 2% compared to that of the previous year. 91% of the cases were completed within 11 working days.

Drug driving/Boating Analytical Service

The GL handled 31 relevant cases in 2025, with a decrease of 21% compared to that of the previous year. 93% of the cases were completed within 33 working days.

Hair drug testing service

The GL examined 2,514 hair samples for Healthy School Programme in 2025, with an increase of 4% compared to that of 2024.

Urinalysis

The GL examined 12,058 cases for judicial confirmation and 2,692 cases for methadone clinics in 2025, with decreases of 8% and 32% respectively compared to those of the previous year.

92% judicial confirmation (routine), 99% judicial confirmation (enhanced probation) and 92% methadone clinics cases were completed within 22, 6 and 11 working days, respectively.

Page 47, Questioned Documents

The Government Laboratory (GL) provides services to law enforcement departments on the determination of the authorship of questioned handwriting and signatures, as well as the verification of the authenticity and/or detection of alterations in questioned documents. In addition, GL offers express service for urgent examination of the authenticity of travel and identity documents.

Work statistics

In 2025, the GL completed a total of 225 cases, including 214 handwriting and counterfeit & forgery cases and 11 express service cases. 99% of the counterfeit and forgery cases were completed within 30 working days. All handwriting and express service cases were completed within 66 working days and 1 working day, respectively.

The Hong Kong Police Force remained the major source of submission, accounting for about 92% of the total cases and about 55% of the express service cases. The Hong Kong Smart Identity Card are the mostly encountered type of items contributing to about 70% of total cases examined in 2025.

The GL also offer professional advice, technical support and testing services to other government departments with regard to documents with security features such as new generation Hong Kong Smart Identity Cards from the Immigration Department and security papers and laminates from the Government Logistics Department.

Page 49, Development

We encourage self-improvement and aim for scientific excellence.

Food Safety

The Government Laboratory (GL) continued to outsource certain routine food testing work covering the testing of pesticide residues and veterinary drug residues, preservatives, metallic contaminants and other contaminants to commercial testing laboratories. The released resources were deployed to meet the demand of the work arising from the amendments of food legislation, development of new testing methods and other duties which included managing outsourcing activities, promoting chemical metrology work and enhancing the testing capabilities of local laboratories.

In response to the discharge of nuclear-contaminated water at the Fukushima Nuclear Power Station in Japan, GL has developed different analytical methods and extended the scope of radiation testing to cover more radionuclides in food imported from Japan.

The Food Adulteration (Metallic Contamination) (Amendment) Regulation 2025 came into effect in September 2025 and provided a grace period of 18 months. To support this Amendment Regulation, GL has developed analytical methods for testing relevant metallic contaminants.

One of the initiatives outlined in the Chief Executive's 2025 Policy Address Supplement was to enhance food safety. This includes reviewing the food safety standards for sweeteners in food to propose legislative amendment, and launching public consultation in 2026. In this regard, GL has been closely liaising with the Centre for Food Safety (CFS) to ensure timely provision of testing services. Furthermore, in light of the reviews of the regulation of veterinary drug residues and colouring matter in food under the Harmful Substances in Food Regulations (Cap. 132AF) and the Colouring Matter in Food Regulations (Cap. 132H) respectively, we have been actively engaging in the development of new methods and procurement of essential reference materials and equipment, with a view to expanding the scope of testing services to cope with the anticipated new service demand from the CFS.

For genetically modified (GM) foods, the GL has expanded the analytical capabilities to include two new GM events, namely maize GM event "M O N 87419" and soybean GM event "GMB 151", using real-time polymerase chain reaction (real-time PCR) technology.

New equipment and facilities acquired in 2025

- Liquid chromatograph with diode array detector for preservatives testing.
- Ultra performance liquid chromatograph – quadrupole time-of-flight mass spectrometer for pesticide residues analyses.
- Automatic sample preparation system for analysis of dioxins and dioxin-like polychlorinated biphenyls (PCBs) in food samples.
- High-resolution gas chromatography/high-resolution mass spectrometry (HRGC-HRMS) system for analysis of dioxins and dioxin-like PCBs in food samples.

Environmental Protection

To cope with the updating of the Stockholm Convention on Persistent Organic Pollutants (P O P s), the Government Laboratory continued with method development and validation work for the analyses of more P O P s in various environmental samples.

New equipment and facilities acquired in 2025

- Gas chromatograph – tandem mass spectrometer system, and integrated ultra high performance liquid chromatograph coupled with diode array detector and fluorescence detector system for the determination of organochlorine pesticides (OCPs) and polycyclic aromatic hydrocarbons (P A Hs) in environmental samples.
- Gas chromatograph – tandem mass spectrometer system and gas chromatograph with fourier transform infrared spectrometer system for testing of ozone depleting substances (O D S), including the hydrofluorocarbons (HFCs) as prescribed under the newly amended Ozone Layer Protection Ordinance (Cap. 403).
- Elemental analyser for the determination of carbon, sulphur, hydrogen, nitrogen and oxygen in environmental samples.
- Cold vapour atomic fluorescence spectrometer for the determination of mercury in environmental samples.

Consumer Protection

Throughout the year, we continued to innovate and verify new methods to enhance consumer protection services. The scope of services was expanded to include the determination of gold with a nominal content of and above 999.99 parts per thousand by mass.

To facilitate the enforcement of the Toys and Children's Products Safety Ordinance (Cap. 424), an ultra-high performance liquid chromatography-tandem mass spectrometry system for chemical testing and a multifunctional testing frame for mechanical testing of children's products have been installed.

As a Testing Member of the World Health Organization (W H O) Tobacco Laboratory Network (TobLabNet), we were invited to participate in the inter-laboratory collaborative study to validate standard operating procedures for non-targeted analysis of flavours in cigarette. As one of the region's leading tobacco testing laboratories, we are committed to ongoing tobacco testing and research activities. This includes contributing to the W H O through training and the development of testing methods, along with various other initiatives.

Drug Quality

The Government Laboratory (GL) continued to develop methods to meet the needs on the testing of new pharmaceuticals.

In the realm of proteomics, liquid chromatography-high resolution mass spectrometry (LC-HRMS) was employed for the identification of liraglutide, semaglutide and tirzepatide in injections.

To support the implementation of the amended requirements on the expanded scope of pesticide residues in Chms samples, GL has successfully developed new multi-residue analytical methods by using gas chromatograph - tandem mass spectrometers and liquid chromatograph - tandem mass spectrometers. These methods have been routinely employed to support the enforcement of the amended requirements. Furthermore, we continued to develop qualitative methods for chemical markers using gas chromatograph- tandem mass spectrometers and liquid chromatograph-tandem mass spectrometers.

New equipment and facilities acquired in 2025

- High performance liquid chromatograph-tandem mass spectrometer for enhancing the analysis of pesticides residues in Chinese herbal medicines (Chms).

Vehicle Speed Determination

Extension of the Scope of Accreditation

In early 2025, the Government Laboratory (GL) released the final reports of the proficiency test on vehicle speed determination from video footage (GLFSD PT 24-01). Analysis indicated that all results of the participants were satisfactory. The study promoted valuable exchanges within the forensic community across Asian countries, and supported the laboratories/institutions in their accreditation processes.

In addition, Forensic Science Division (FSD) of GL has successfully extended the scope of accreditation of ISO/IEC 17043:2023 to vehicle speed determination from video footage, indicating that our proficiency testing scheme conforms to the general requirements for the competence and impartiality of proficiency testing (PT) providers and consistent operation of all proficiency testing schemes.

Hong Kong Short Term Patent

A novel portable frame interval timer which provides a time resolution of as low as 0.001 seconds was designed and built to verify the frame rate of accident footage, thus providing accurate speed determinations. To protect the intellectual property of this portable interval timer, a Hong Kong short-term patent entitled “A portable interval timer for evaluating the frame rate of videos recorded by car cameras” (Patent Number HK30115519) was successfully granted from the Intellectual Property Department, HKSAR, on 28 March 2025.

Questioned Documents

Provision of Proficiency Testing Programme

In 2025, the Government Laboratory organized a Proficiency Testing Programme on Chinese Handwriting and Signature Examination in accordance with ISO/IEC 17043 requirements.

The main objective of this programme is to provide an analytical forum for participants in the field of document examination and to evaluate the competency of participating laboratories in Chinese handwriting and signature examination.

A total of 39 government laboratories or agencies worldwide participated in the programme, with 36 submitting their results. About 90% of the participants gave satisfactory results.

Metrology in Chemistry

The Government Laboratory (GL) is the Designated Institute responsible for metrology in chemistry in Hong Kong, China under the International Committee for Weights and Measures (CIPM) Mutual Recognition Arrangement (MRA). Our role is to establish and disseminate traceability of related measurements to support the testing community in Hong Kong, through the production of certified reference materials (CRMs) and provision of reference measurements. Our proficiency testing (PT) schemes with metrologically traceable reference values are especially helpful in carrying out this mandate.

By actively participating in meetings, workshops, symposiums and comparison studies organised by international and regional metrology organisations such as the International Bureau of Weights and Measures (BIPM) and the Asia Pacific Metrology Programme (APMP), the Government Laboratory contributes to Hong Kong's development and prosperity as well as international efforts in building a robust and harmonised scientific measurement infrastructure for global trade, commerce and regulatory affairs.

Professional excellence

The GL is one of the founding members of the Co-operation on International Traceability in Analytical Chemistry (CITAC) and a full member of the Asia-Pacific Metrology Programme (APMP).

Under the International Committee for Weights and Measures (CIPM) Mutual Recognition Arrangement (MRA), the GL is Designated Institute in the field of metrology in chemistry for Hong Kong, China; and the official observer of the Consultative Committee for Amount of Substance: Metrology in Chemistry and Biology (CCQM).

In addition, the GL is accredited and certified to ISO/IEC 17025:2017, ISO/IEC 17043:2023, ISO 17034:2016, ISO 14001:2015 and ISO/IEC 17020:2012.

Statistics

Through continuous development, up until 2025, the GL:

- Provision of 90 PT Schemes;
- Production of 10 CRMs;
- Acquirement of 133 Calibration and Measurement Capability (CMC) Claims; and
- Organisation of 25 and participation in over 100 key comparisons, supplementary comparisons or pilot studies.

Organisation of comparison studies and Proficiency Testing (PT) schemes

(1) Local PT schemes

- Boric Acid in Food (GLHK PT 25-01);
- Propionic Acid in Flour Confectionery (GLHK PT 25-02);
- Toxic Elements in Cosmetics (GLHK PT 24-04); and
- Chemical Markers in Chinese Medicinal Oil (GLHK PT 25-03).

(2) Other PT schemes

- Vehicle Speed Determination from Video Footage (GLFSD PT 24-01); and
- Chinese Handwriting and Signature Examination (GLFSD PT 25-01).

(3) CCQM key comparison and pilot study

- Arsenic Speciation in Foods (CCQM-K195/P252).

(4) RMO supplementary comparisons and pilot studies

- Histamine in Fish (APMP.QM-S21);
- Non-polar Pesticides in Water (APMP.QM-S23/P43); and
- Polar Pesticides in Water (APMP.QM-S24/P44).

Remarks:

APMP - Asia-Pacific Metrology Programme

CCQM - Consultative Committee for Amount of Substance: Metrology in Chemistry and Biology

RMO - Regional Metrology Organisation

AFRIMETS - Intra-Africa Metrology System

S I M - Inter-American Metrology System

EURAMET - European Association of National Metrology Institutes

Participation in international (CCQM) and regional (RMO) comparisons and pilot studies

- Critical Elements in Lithium Ion Batteries (EURAMET.QM-S16);
- Mass Fraction of Digitoxin (CCQM-K148.c);
- Elements in Pork (CCQM-K187);
- The Species specific meat composition determination of DNA Extracted from Meat (CCQM-P231);
- Mass Fraction of Polar to Non-polar Pesticides in Plum Slurry (AFRIMETS.QM-S1);
- Cadmium and Lead in Cacao Powder (S I M.QM-S18); and
- Vitamin D3 in Infant Formula (CCQM-K204).

Calibration and Measurement Capability (CMC) claims

In 2025, we attained 13 new CMC claims under the categories of food, water and high purity chemicals. As at December 2025, the total number of CMC claims achieved is 133 CMC claims published in the BIPM Key Comparison Database (KCDB).

Categories and number of CMC claims achieved by the GL are as follows:

- 5 in Advanced materials;
- 16 in Biological fluids and materials;
- 48 in Food;
- 2 in Fuels;
- 11 in High purity chemicals;
- 3 in Inorganic solutions;
- 6 in Organic solutions;
- 1 in pH;
- 13 in Sediments, soils, ores and particulates;
- 19 in Water; and
- 9 in Other materials.

Accreditation

In September and December 2025, the Forensic Science Division and the Analytical & Advisory Services Division respectively transitioned their quality management systems regarding proficiency testing provider from ISO/IEC 17043:2010 to meet the new ISO/IEC 17043:2023 standard. We displayed our continuous robust measures to safeguard impartiality and confidentiality, as well the technical expertise of our staff in PT schemes design and their rigorous adherence to the required accreditation standards.

Issue of Interest

Our representatives visited the National Institute of Metrology (N I M) of China on 18 March 2025. During the visit, both parties engaged in comprehensive information exchange and in-depth discussions regarding the production of certified reference materials and collaborations in various metrological fields. The visit served to strengthen the existing partnerships between the GL and NIM, while also paving the way for exploring new collaboration opportunities in other areas of metrology.

Our representatives also attended the CCQM working group meetings and the 30th Meeting of the CCQM at the BIPM in Paris, France during 5 to 11 April 2025. The CCQM is responsible for the development, improvement, and documentation of national standard's equivalence, including CRMs and reference methods, for chemical and biological measurements.

We co-organised a technical seminar on the Use and Production of Reference Materials with the Hong Kong Accreditation Service (HKAS) of the Innovation and Technology Commission (ITC), at the Hong Kong Space Museum on 4 December 2025. Dr. Angelique BOTHA, Chief Metrologist of the National Metrology Institute of South Africa (NMISA) and Chairperson of the ISO/TC 334 Technical Committee, was invited to present an overview of the new ISO 33400 series of standards. Our senior chemist also shared insights on reference materials from the GL as the Designated Institute for metrology of chemistry in Hong Kong, China.

Page 59, Training • Sharing • Exchange

We strive to recognise and anticipate the needs of clients, working openly and cooperatively in setting work schedules and meeting targets.

Training to client departments

Complementing analytical, advisory, and forensic services, the Government Laboratory facilitates training programmes for client departments, aiming to reinforce mutual cooperation and optimise service quality. In 2025, 1355 participants from the Customs and Excise Department, Department of Justice, Food and Environmental Hygiene Department, Hong Kong Police Force, Independent Commission Against Corruption (ICAC), Immigration Department and the Social Welfare Department (SWD) joined a total of 34 lectures and/or visits organised by the Government Laboratory.

Number of trainees attended trainings organised by the GL in 2025 are as follows:

- 10 from Customs and Excise Department;
- 28 from Department of Justice;
- 49 from Food and Environmental Hygiene Department;
- 1195 from Hong Kong Police Force;
- 46 from Independent Commission Against Corruption;
- 10 from Immigration Department; and
- 17 from Social Welfare Department.

Facilitation & Support to Local Testing Industry (HOKLAS)

In support of the accreditation of local testing laboratories under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) in 2025, Government Laboratory professional staff acted as technical assessors in 12 assessments with totalling 23 man-days.

Number of man-days of Government Laboratory staff acted as HOKLAS assessors in 2025 are as follows:

- 1.5 in Pharmaceutical products;
- 7 in Food;
- 7.5 in Environmental testing;
- 2 in Chinese medicine; and
- 5 in Chemical testing.

Our Visitors

Food Security Technology Department of the Ministry of Public Security's Institute of Forensic Science

During 25 to 26 February,

A delegation, led by the Senior Division Chief, Ms. Wang Fanglin, from the Food Security Technology Department of the Ministry of Public Security's Institute of Forensic Science, visited the Government Laboratory and was welcomed by Dr. Cheung Tsz-chun (now Government Chemist). The visiting programme aimed to provide opportunities for both sides to exchange views on testing work related to food, drugs and environmental protection.

Anti-Drug Technology Center of Guangdong Province

During 4 to 6 March,

Two experts, Mr. Xu Ruolun and Mr. Gao Vijay, from the Anti-Drug Technology Center of Guangdong Province, visited the Government Laboratory. They shared their experiences in the analysis of new psychoactive substances and forensic investigation related to illicit drug manufacturing scene with our colleagues.

State Administration for Market Regulation

On 12 May,

Dr. Cheung Tsz-chun (now Government Chemist) met with Mr. Sun Huichuan, Food Safety Director of The State Administration for Market Regulation, who led a delegation to visit the Government Laboratory to exchange views on food safety testing in the Chinese Mainland and Hong Kong.

Drug Intelligence and Forensic Center, Ministry of Public Security

On 20 May,

Mr. Cheung Kwok-keung, the then Assistant Government Chemist of Forensic Science Division, met with Mr. Han Xu-guang, Party Secretary & Director of Drug Intelligence and Forensic Center, Ministry of Public Security, who led a delegation to visit Government Laboratory to exchange views on drug testing.

Beijing Food Research Institute

On 18 September,

A delegation of five, led by Ms. Guo Qin, Deputy Director of the Beijing Food Research Institute, visited the Government Laboratory and met with colleagues from the Analytical and Advisory Services Division (Food Safety and Quality Group). Both sides discussed and exchanged views on safety testing in the Chinese Mainland and Hong Kong.

Across the Globe

National Institutes for Food and Drug Control

On 19 March,

Dr. Lee Wai-on, the then Government Chemist, led the delegation of the Government Laboratory (GL) to visit the National Institutes for Food and Drug Control (NIFDC) and met with Mr. An Fudong, the Director General of NIFDC, and various officials to exchange views on safety measures and testing protocols for food, Chinese drugs and Western pharmaceutical products, as well as potential collaboration between GL and NIFDC. Accompanied by Mr. An Fudong of NIFDC, Dr. Lee Wai-on toured NIFDC's laboratories, where he was briefed on its facilities and operations. The visit aimed to foster exchange, enhance mutual understanding and further strengthen collaboration in the field of testing in food and drugs, as well as to discuss the latest developments in various testing technologies.

Science and Technology Research Center of China Customs

On 20 March,

Dr. Lee Wai-on, the then Government Chemist, led the delegation of the Government Laboratory (GL) to visit the Science and Technology Research Center of China Customs (STRC) and met with the Deputy Director of STRC, Mr. Chang Liang and Ms. Xiao Lili, and various officials to exchange views on safety measures and testing protocols for food and consumer products, as well as potential collaboration between GL and STRC. Accompanied by Mr. Chang and Ms. Xiao, Dr. Lee toured STRC's laboratories, where he was briefed on its facilities and operations. The visit aimed to foster exchange, enhance mutual understanding and facilitate further collaboration between GL and STRC.

Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs

On 20 March,

Dr. Lee Wai-on, the then Government Chemist, led the delegation of the Government Laboratory (GL) to visit the Institute for the Control of Agrochemicals, Ministry of Agriculture and Rural Affairs (ICAMA) and met with Director Huang Xiuzhu, Vice Director Shan Weili and various experts to exchange views on regulatory standards and testing of pesticide residues in food, as well as potential collaboration between GL and ICAMA. Accompanied by Dr. Huang, Dr. Lee toured ICAMA's laboratory, where he was briefed on its facilities and operations. The visit aimed to foster exchange, enhance mutual understanding and strengthen further collaboration in the field of testing pesticide residues in food.

AOAC China Analytical Science and Standards Conference 2025

During 25 to 27 March,

Mr. Ng Chi-shing (Chief Chemist), Dr. Wong Yiu-tung (Chemist) and Dr. Wong Lai-ming Ella (Chemist) in the Analytical and Advisory Services Division of the Government Laboratory, attended the AOAC China Analytical Science and Standards Conference 2025 in Shenzhen, China. The AOAC conference provided a platform for scientists and regulators from China and around the globe to exchange the advanced analytical science and standards, and updates on scientific activities of AOAC stakeholder panels on analytical standards with involvement from China.

Consultative Committee for Amount of Substance (CCQM) Spring 2025 Meetings

During 5 to 11 April,

Delegates from the Government Laboratory (GL) participated in the Consultative Committee for Amount of Substance (CCQM) working group meetings and the 30th Meeting of the CCQM held from 5 to 11 April 2025 at the Bureau International des Poids et Mesures (BIPM) in France. During the CCQM Inorganic Analysis Working Group (IAWG) and the Organic Analysis Working Group (OAWG) meetings, GL representatives presented updates on the progress of comparisons organised by GL. Besides, a presentation titled “Comprehensive method validation of purity assessment on organic compounds using quantitative nuclear magnetic resonance (qNMR) technique & Experience sharing on ISO 17025 and ISO 17034 accreditation” was delivered at the Advances in qNMR Workshop. GL has been actively participated in the CCQM for discussions on cutting-edge developments in chemical metrology, fostering knowledge exchange, collaboration, and idea sharing among national metrology institutes (NMIs), designate institutes (D I s) and international experts on measurement standards.

2025 World Metrology Day China Main Event

On 20 May,

Dr. Lee Wai-on, the then Government Chemist, led a Government Laboratory (GL) delegation to Guangzhou to participate in the “2025 World Metrology Day China Main Event”. Hosted by the State Administration for Market Regulation (SAMR), the event celebrated the 26th World Metrology Day and launching of the “Guangdong-Hong Kong-Macao Greater Bay Area Metrology Development and Cooperation Platform” (the Platform). As one of the co-founding institutes, the GL contributed to the Platform’s establishment, which aims to deepen collaboration among Guangdong, Hong Kong, and Macao to foster synergistic innovation in metrology. Following the event, the Platform held its first Executive Committee meeting.

The 150th Anniversary of the Signing of the Metre Convention and World Metrology Day 2025

During 20 to 22 May,

The year 2025 marks the 150th anniversary of the Metre Convention. Dr. Cheung Tsz-chun (now Government Chemist) and a senior chemist of the Government Laboratory (GL) attended the symposium "150 Years Since the Signing of the Metre Convention and Celebration of World Metrology Day 2025" at the UNESCO Headquarters and the conference "From Units to the Universe - Future Revolutions in Metrology" at the Versailles Palais des Congrès in France. These scientific events provided valuable insights into advancements in the International System of Units (SI), measurement traceability, and their applications in scientific innovation, trade, and sustainability. The visit facilitated collaboration with representatives from other metrology institutes, international organizations, and industry experts, fostering opportunities to strengthen partnerships in metrology.

IUPAC 2025, 50th World Chemistry Congress 2025

During 14 to 19 July,

Dr. Wong Lai-ming Ella, a chemist in the Analytical and Advisory Services Division of the Government Laboratory, attended the IUPAC 2025, 50th World Chemistry Congress 2025 (IUPAC 50WCC) at the Kuala Lumpur Convention Centre in Malaysia. The congress featured scientific sessions across various disciplines of chemistry and attracted over 3,400 delegates from 95 countries worldwide. This marked the first time the congress was held in an ASEAN country.

The 56th Session of the Codex Committee on Pesticide Residues

During 8 to 13 September,

Dr. Yau Ho-pan, Michael (Senior Chemist) and Dr. Shiu Hoi-yan, Fiona (Chemist) from the Analytical and Advisory Services Division of the Government Laboratory, attended the 56th Session of the Codex Committee on Pesticide Residues (CCPR56) in Santiago, Chile, as part of the Chinese delegation. The session, attended by over 250 delegates from 48 member countries, 1 member organization (EU) and 9 international organizations, discussed 13 agenda items and reviewed more than 300 proposed maximum residue limits for over 30 pesticides in agriculture products. Dr. Yau was reappointed as rapporteur responsible for documenting the Committee's discussions and decisions.

AOAC SEA – APMP Joint Workshop

On 30 October,

Dr. Chum Wing-yan Winnie (Chemist) from the Analytical and Advisory Services Division of the Government Laboratory participated in the Joint Workshop of the AOAC Southeast Asia Section (AOAC SEA) and the Asia Pacific Metrology Programme (APMP) held in Bangkok, Thailand. Representing the Government Laboratory as one of the invited speakers, she delivered a presentation entitled “Development of Reference Methods and Reference Materials to Support Food Authenticity” highlighting the Government Laboratory’s expertise and contributions to advancing metrology in support of food safety in Hong Kong.

Liaison with Our Counterparts

Attachment training for Criminalistics Experts from KIMIA, Malaysia

During 18 to 29 August,

The Physical Sciences and Chemical Sciences Sections conducted a two-week attachment training program for four forensic scientists from the Criminalistics Division of Forensic Science Analysis Centre, Department of Chemistry Malaysia (KIMIA). The training aimed to exchange the latest technological development and laboratory quality standards, focusing on specialized areas such as traffic accident reconstruction, vehicle number restoration and contact evidence examination. The Malaysian experts also shared their experiences and testing techniques, and this exchange will open up new opportunities for future collaboration.

Attachment program at the National Institute of Metrology, China

During 18 August to 12 September,

Dr. Lee Wan-waan, a chemist in the Analytical and Advisory Services Division of the Government Laboratory, participated in a four-week attachment program at the National Institute of Metrology (NIM), China. The program focused on exchanging knowledge of the latest techniques in inorganic analysis and strengthening professional networks between the two institutes.

Visiting Scientist Programme at BIPM

During November 2025 to May 2026,

Dr. Choi Lai-sheung, a chemist in the Analytical and Advisory Services Division of the Government Laboratory (GL), temporarily left her duties in GL and took an opportunity under the Visiting Scientist Programme to work in the Bureau International des Poids et Mesures (BIPM) in Paris France. The programme lasted for six months and she worked on the development of polar pesticide calibration materials and method for their values assignment for use in other international comparison studies.

Attachment Training at the Academy of Forensic Science in Shanghai, China

During 1 to 12 December,

Dr. Anlea Chu, a chemist from the Forensic Science Division, participated in a two-week attachment training program at the Forensic Toxicology Laboratory of the Academy of Forensic Science in Shanghai, China. This program aimed to enhance cooperation between the Government Laboratory and the Academy of Forensic Science of China, while promoting technical exchanges in forensic toxicology. The visit strengthened this partnership and facilitated further collaboration in the field.

Presentations

- CW Chan presented “A Dilute-and-Shoot LC-MS/MS Screening Method for Analyzing Etomidate and Analogues, including Their Major Metabolite in Urine Samples from Drug Testing Cases” at the European Academy of Forensic Science Conference 2025 (EAFS 2025) in Dublin, Ireland;
- LY So presented “Advancing Bio-Analytical Excellence: Molecular Biology Applications in Speciation, GMO Detection, and Allergen Analysis at the Hong Kong Government Laboratory” at the APMP TCQM workshop in Incheon, South Korea;
- LF Fung presented “Application of bloodstain pattern analysis at crime scenes” at the Asian Forensic Sciences Network Crime Scene Investigation Workgroup Symposium 2025 in Beijing, China;
- Ella LM Wong presented “Determination of Organochlorine Pesticide Residues in Chinese Herbal Medicines using Gas Chromatography - Tandem Mass Spectrometry (GC-MS/MS): Method Validation and Measurement Uncertainty Estimation” at the IUPAC 2025, 50th World Chemistry Congress 2025 in Kuala Lumpur, Malaysia;
- YT Wong presented “Development of Analytical Method for Rosemary Extract in Food” at the AOAC China Analytical Science and Standards Conference 2025 in Shenzhen, China;
- LY So presented “Evaluation of Measurement Uncertainties in DNA Measurements” at the Metrology Workshop on Measurement Uncertainty 2025 in Hong Kong, China;
- PK Ng presented “Forensic Examination of Vehicle Wrap Using a Combination of Techniques” at the 17th Asian Forensic Sciences Network (AFSN) Annual Meeting & Symposium and the 13th Asia Pacific Medico-Legal Agencies (APMLA) in Incheon, South Korea;
- CN Tsang presented “Hong Kong Unidentified Persons and Missing Persons DNA Database” at the 8th Congress of China National DNA Database in Xinjiang, China;
- WS Hui presented “Interpol Review of Toxicology 2023 to 2025” at the 21st Interpol International Forensic Science Managers Symposium in Lyon, France.

- WK Lee presented “Organization of Proficiency Testing Programme for Chinese Handwriting and Signature Examination under ISO/IEC 17043” at the 17th Asian Forensic Sciences Network (AFSN) Annual Meeting & Symposium and the 13th Asia Pacific Medico-Legal Agencies (APMLA) in Incheon, South Korea;
- JPK Lau presented “Production and Use of Reference Materials: Insights from the Government Laboratory as the Designated Institute for Metrology in Chemistry in Hong Kong, China” at the Technical Seminar on the Use and Production of Reference Materials in Hong Kong, China;
- KC Lo presented “Sharing on Chemical Analysis of Beauty Products” at the Hong Kong Chemistry Olympiad of Secondary Schools 2025 – 2026 in Hong Kong, China;
- Ella LM Wong presented “Simultaneous Determination of Organophosphorus Pesticide Residues in Chinese Herbal Medicines using Ultra-Performance Liquid Chromatography-Tandem Mass Spectrometry” at the AOAC China Analytical Science and Standards Conference 2025 in Shenzhen, China;
- WW Lee presented “Technical Briefing on Trace Elements Analysis for the Food Adulteration (Metallic Contamination) (Amendment) Regulation 2025” at the Technical Briefing on Trace Elements Analysis in Hong Kong, China;
- WH Fung presented “The Calibration and Measurement Capabilities (CMCs)” at the National Institute of Metrology of China in Beijing, China;
- CN Tam presented “The Development and Planning for the “Uncommon” Proficiency Testing Programmes in Accordance with ISO/IEC 17043 Requirements” at the European Academy of Forensic Science Conference 2025 (EAFS2025) in Dublin, Ireland;
- JPK Lau presented “The metrology work of GL” at the National Institute of Metrology of China in Beijing, China;
- CY Ip presented “Urinalysis & Hair Drug Testing Services at the Government Laboratory Hong Kong (GL HK)” at the Training Workshop on Biological Sample Testing for Forensic Drug Analysis Working Group of Mekong MOU in Chengdu, China.

Publications

- DY Luk, THM Cheung, WK Sze, MH Lo, JSW Wong and CK Li published a paper titled "Accreditation of Crime Scene Investigation under ISO17020:2012 Standard in Hong Kong" Institute of Forensic Science of China, *Forensic Science and Technology*, 2025, 50(3): 314-318.
- LS Choi, SF Chan and KW Yeung published as paper titled "Determination of Ascorbyl Palmitate and Ascorbyl Stearate in Foods by LC-MS/MS" *Journal of AOAC International*, 108 (2025), 886–892.
- YT Wong, KL Chan, Odi HW Yiu, CC Chen, TW Leung and KW Yeung published a paper titled "Development of a LC-MS/MS Method for the Determination of Lauric Arginate Ethyl Ester (E243) in Food" *Journal of AOAC International*, 108 (2025), 558-565.
- YT Wong, TS Leung and WH Fung published a paper titled "Development of a Modified QuEChERS Extraction for the Detection of Rosemary Extracts (E392) Expressed as Sum of Carnosol and Carnosic Acid in Food by LC-MS/MS" *Journal of AOAC International*, 108 (2025), 199-206.
- YH Hong and WM Lee published a paper titled "Forensic characterization and discrimination of automotive paint protection films (PPFs) using ATR-FTIR and Pyrolysis-GC-MS analysis" *Forensic Science International*, DOI: 10.1016/j.forsciint.2025.112726.
- JPK Lau and WH Fung published a paper titled "Promotion of metrological traceability through the provision of a metrologically traceable proficiency testing reference value for the mass fraction of benzoic acid in fish sauce" *Accreditation and Quality Assurance*, 30 (2025), 103-115.

- WH Fung (GL staff), SZ Can, CW Tse (GL staff), YT Tsoi (GL staff), WW Lee (GL staff), B Ari, M Tunç, J Merrick, RC de Sena, K Nadeau, J Meija, L Yang, Z Mester, SS Riquelme, JV Maldonado, JB Chao, Q Wang, SJ Song, P Fisicaro, YB Zhu, YH Yim, KS Lee, E Naujalis, M Strzelec, A Stakheev, A Krylov, E Sobina, R Shin, F Dewi, SL Peng, LH Wah, W Yu, R Jaćimović, T Zuliani, C Haraldsson and S Taebunpakul published a paper titled “Final report for CCQM-K155: Elements and tributyltin in seawater” *Metrologia*, 62 (2025), Tech. Suppl. 08007.
- YH Yim, KS Lee, K Inagaki, T Ariga, YR Lim, JW Lee, YB Zhu, T Narukawa, WH Fung (GL staff), SK Tong (GL staff), RYC Shin, F Dewi, SL Peng, HW Leung, CAE Sánchez, MS da Rocha, T de Oliveira Araujo, O Acosta, M Puellas, R Jaćimović, MJ Hudobivnik, RP Zambra, R Napoli, H Goenaga-Infante, S Hill, J Entwisle, C Ward-Deitrich, P Petrov, S Mallia, S Lobsiger, X Li, Q Ma, N Ornthai, RN Yamani, J Merrick, A Botha, P Grinberg, Z Gajdosechova, K Nadeau, O Rienitz, A Pramann, V Goerlitz and A Roethke published a paper titled “Final report for CCQM-K158: Elements and inorganic arsenic in rice flour” *Metrologia*, 62 (2025), Tech. Suppl. 08001.
- JB Chao, LD Ma, NJ Shi, YQ, Y Chen, LJ Dong Lijie, YJ Zhou Yuan, P Grinberg, Z Mester, E Pagliano, HT Quezada, JPA Gamba, IF Tahoun, O Rienitz, J Towara, C Pape, U Schulz, A Roethke, WH Fung (GL staff), JPK Lau (GL staff), QKW Chan (GL staff), KCW Tse (GL staff), C Cheong, VI Dobrovolskiy, SV Prokunin, DA Vengina, A Sobina, A Shimolin, R Shin, WZR Yu, HW Leung, N Tangpaisarnkul, P Rodruangthum, SZ Can, FG Coskun and O Cankur published a paper titled “Final report for CCQM-K161: Anions in Seawater” *Metrologia*, 61 (2024), Tech. Suppl. 08016.
- A-K Römmert, R Ohlendorf, C Arsene, R Zhai, Z Chu, Y Jin, L Wu, X Dai, L Yu, T Kinumi, LH Tong (GL staff), Q Liu, B Sleumer, and MJ Vos published a paper titled “Final report for CCQM-K177: Determination of growth hormone in serum using isotope dilution mass spectrometry” *Metrologia*, 62 (2025), Tech. Suppl. 08026.

- G Martos, S Westwood, M Bedu, T Choteau, R Josephs, R Wielgosz, M Bilsel, G Aktas, H Altuntas, G Coşkun, TD Gezer, S Gündüz, A Isleyen, SA Ozen, İ Ün, H Yılmaz, SR Davies, M Alamgir, B Chan, M Moawad, E Kent, C Nguyen, EC Pires do Rego, BC Garrido, JLN Fernandes, W Wollinger, TO Araújo, AC Osorio, MD de Almeida, M-P Thibeault, I Rajotte, J Bates, SD Giddings, EJ Wright, K Thomas, P McCarron, A Brinkmann, FH Su, QH Zhang, Q Wei, W Zhang, LH Shi, WH Wang, T Huang, YX Han, WX Li, JPK Lau (GL staff), CW Tse (GL staff), WH Fung (GL staff), K Meyer, P Giannikopoulou, I Kakoulidis, Y Shimizu, M Kawaguchi, S Eyama, T Suzuki, Y Yamauchi, T Yamazaki, S Nakamura, XN Bao, Y Kitamaki, M Kato, N Itoh, AI Krylov, LV Eliseeva, AY Ivanova, EM Lopushanskaya, AY Mikheeva, MY Palagina, SG Kharitonov, TL Teo, PS Cheow, T Lu, EM Gui, J Wang, B Tong, LP Sim, HW Leung, R Shin, D Prevoo-Franzsen, N Nhlapo, C Swiegelaar, M Fernandes-Whaley, T Chiloane, L Quinn, M Linsky, D Marajh, SY Lee, SY Baek, HJ Kwon, JH Lee, K Choi, S Marbumrung, P Kankaew, P Jongmesuk, C Boonyakong, P Rodruangtham, N Sudsiri, C Suksai, S Watchasit, C Clarkson, E Achtar, S Rai, MA Nelson, J Mulloor, BE Lang, AA Urbas, F Tadjine, J Polzer, C Portesi, C Schiavone, S Hashim, HR Bahari, NFM Zin and SNF Sulaiman published a paper titled “Key comparison CCQM-K148.b - polar analyte in solid organic material: mass fraction of oxytetracycline” *Metrologia*, 62 (2025), Tech. Suppl. 08012.
- G Martos, S Westwood, M Bedu, T Choteau, R Josephs, R Wielgosz, M Bilsel, G Aktas, H Altuntas, G Coşkun, TD Gezer, S Gündüz, A Isleyen, SA Ozen, İ Ün, H Yılmaz, SR Davies, M Alamgir, B Chan, M Moawad, E Kent, C Nguyen, EC Pires do Rego, BC Garrido, JLN Fernandes, W Wollinger, TO Araújo, AC Osorio, MD de Almeida, FH Su, QH Zhang, Q Wei, W Zhang, LH Shi, WH Wang, T Huang, YX Han, WX Li, JPK Lau (GL staff), CW Tse (GL staff), WH Fung (GL staff), P Giannikopoulou, I Kakoulidis, Y Shimizu, M Kawaguchi, S Eyama, T Suzuki, Y Yamauchi, T Yamazaki, S Nakamura, XN Bao, Y Kitamaki, M Kato, N Itoh, AI Krylov, LV Eliseeva, AY Ivanova, EM Lopushanskaya, AY Mikheeva, MY Palagina, SG Kharitonov, TL Teo, PS Cheow, T Lu, EM Gui, J Wang, B Tong, LP Sim, HW Leung, R Shin, D Prevoo-Franzsen, N Nhlapo, C Swiegelaar, M Fernandes-Whaley, T Chiloane, L Quinn, M Linsky, D Marajh, SY Lee, SY Baek, HJ Kwon, JH Lee, K Choi, S Marbumrung, P Kankaew, P Jongmesuk, C Boonyakong, P Rodruangtham, N Sudsiri, C Suksai, S Watchasit, S Hashim, HR Bahari, NFM Zin, SNF Sulaiman, AT Junsay and PAM Quiton published a paper titled “Key comparison CCQM-K179 - polar analyte in solid organic material: mass fraction of oxytetracycline hydrochloride salt” *Metrologia*, 62 (2025), Tech. Suppl. 08013.

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Joy through giving and building unity

Education & Careers Expo 2025

On 17 January,

The Government Laboratory (GL) participated in the Education & Careers Expo 2025, through setting up an information corner inside the Civil Service Bureau's booth, at the Hong Kong Convention and Exhibition Centre. Our representatives introduced the analytical, advisory and forensic services provided by the GL, as well as the entry requirements of various grades in the GL.

Technological and Higher Education Institute of Hong Kong (THEi) Career Fair 2025

On 05 March,

The Government Laboratory (GL) was invited to take part in the Technological and Higher Education Institute of Hong Kong (THEi) Career Fair. GL representatives introduced the analytical, advisory and forensic services provided by the GL, as well as the entry requirements of respective grades in the GL.

Hong Kong Institute of Vocational Education

On 2 April,

30 students from the Hong Kong Institute of Vocational Education visited the Food Safety Laboratory of the Government Laboratory (GL). The visit featured an overview of the GL's operations, in particular food testing activities, entry requirements and career opportunities. In addition, the students took part in a laboratory tour where chemists showcased food safety testing work and facilities. This visit deepened the students' understanding of the diverse analytical, investigatory and advisory services provided by the GL.

Hong Kong Academy for Gifted Education to Forensic Science Division, Government Laboratory

During 22 to 23 April,

Two groups of students and staff (each about 28) from the Hong Kong Academy for Gifted Education (H K A G E) visited Forensic Science Division (FSD). The visits allowed the students to gain a deeper understanding of the work of FSD, and experience forensic examinations through simulated testing.

“Guardians of Food Safety” event in Hong Kong Science Festival 2025

On 25 April,

The “Guardians of Food Safety” event in Hong Kong Science Festival 2025 was successfully held at the Hong Kong Science Museum to celebrate the 10th National Security Education Day. Dr. Yuen Wing-hoi, Angella, a chemist in the Analytical and Advisory Services Division of the Government Laboratory, introduced some principles of food safety assessment in the laboratory and related food regulations in Hong Kong. Moreover, there was an interactive session for participants to perform interesting experiments related to food additives and deterioration.

Tung Wah College

On 8 May,

18 students and staff from Tung Wah College visited Forensic Science Division (FSD) of the Government Laboratory. This visit gave students the opportunity to learn about the work of FSD as well as the operations of our DNA laboratory.

The 5th Anniversary of the Promulgation & Implementation of the Hong Kong National Security Law cum Technological and Higher Education Institute of Hong Kong (THEi) Visit to the Government Laboratory

On 29 May,

This year marks the 5th anniversary of the promulgation and implementation of the Hong Kong National Security Law. The Government Laboratory (GL) hosted a visit for THEi for some 30 teachers and students. During the visit, our chemists took the opportunity to introduce our commitment to safeguarding national security across various facets of our work, with the goal of promoting national security and enhancing awareness of safeguarding national security. The visit also featured informative presentations and an engaging lab tour, allowing teachers and students to gain firsthand insights into our work and relevant career opportunities.

Young Persons of Youth Employment Start (Y.E.S.)

On 20 June,

About 30 Y.E.S. young persons and social workers visited the Government Laboratory (GL). The visit provided an overview of entry requirements and career opportunities at the GL, along with valuable insights from our chemists about their work experiences.

They also engaged in a laboratory tour, where our chemists showcased their expertise in areas such as food safety, environmental protection, forensic science, and many more. Additionally, a chemist from the Controlled Drugs Section delivered a talk titled “Common Drugs of Abuse in Hong Kong”, with a view to reminding members of the public, especially young persons, to stay away from drugs. We believe this visit enhances young persons’ understanding of the varied analytical, investigatory, and advisory services offered by the GL.

Tung Wah College

On 25 June,

Students and staff from Tung Wah College visited the Forensic Science Division (FSD), Government Laboratory. The visit allowed the students to have an opportunity to learn about the work of FSD and its relation to safeguarding National Security. The students also learnt about the operation of our DNA laboratory. We hope the visit would heighten the students' interest in forensic science, which may become one of their career options.

CLAP @ JC Programme

During 7 to 9 July,

About 100 students and teaching staff from 8 secondary schools participating in the CLAP@JC Programme visited the Government Laboratory (GL). The visits allowed the students to have the opportunities to learn about the work of GL and experience hands-on forensic experiments.

“Science in the Public Service” – “Junior Detective 5.0” Celebrating the 76th Anniversary of the Founding of the People’s Republic of China

On 23 August,

To celebrate the 76th Anniversary of the Founding of the People’s Republic of China, the Government Laboratory (GL) successfully hosted the Science Exploration Activity "Science in the Public Service" – “Junior Detective 5.0” at the Science Museum. GL chemists guided the "junior detectives" through a simulated crime scene, employing innovative technologies to collect various types of scientific evidence. Participants engaged in hands-on scientific tests, using their scientific minds to solve crimes and gain a deeper understanding of forensic analysis.

Government Career Fairs 2025

During September to October,

The Government Laboratory (GL) has participated in the Government Career Fairs from mid-September to early October, engaging with students across local universities in Hong Kong, including the University of Hong Kong, the Hong Kong University of Science and Technology, the Hong Kong Polytechnic University and the Chinese University of Hong Kong. Representatives of the GL introduced attendees to the analytical, advisory, and forensic services, detailing the entry requirements for various positions within the Laboratory and helping students understand the career opportunities.

Government Laboratory Rally on 2025 Legislative Council election

During October to December,

Dr. Lee Wai-on, the then Government Chemist, together with directorates and section heads, held a rally to rouse colleagues and family members to vote in the 2025 Legislative Council election on 7 December.

The 15th National Games (NG), 12th National Games for Persons with Disabilities (NGD) and 9th National Special Olympics Games (NSOG)

During September to December,

The 15th NG, the 12th NGD, and the 9th NSOG were successfully completed, showcasing resource sharing, complementary strengths, and deepened cooperation in the development of the Greater Bay Area.

The Government Laboratory formed a volunteer team of more than 30 staff members, who participated in various event volunteer duties—including anti-doping support, para dance, and wheelchair fencing—contributing over 600 service hours.

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Government Laboratory Annual Report 2025

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