

The State General Laboratory close to the European Citizens

Its vision... Excellence for Better Contribution to the Quality of Life

100
ΧΡΟΝΙΑ ΣΥΜΒΟΛΗΣ
YEARS OF CONTRIBUTION
Γενικό Χημείο του Κράτους
State General Laboratory




REPUBLIC OF CYPRUS

MINISTRY OF HEALTH

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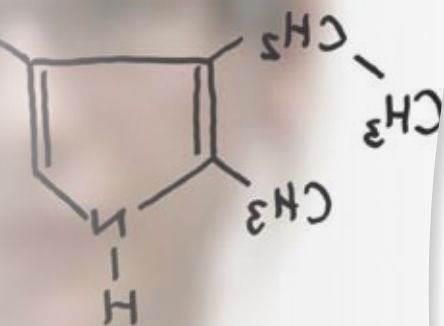
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INTRODUCTION

The State General Laboratory of Cyprus (SGL) is one of the five independent Departments of the Ministry of Health, with a wide range of responsibilities that include the Chemical/Biological/Microbiological/Toxicological and Radiological Laboratory, control of food, water, environmental, pharmaceutical samples as well as cosmetics and other consumer goods. Laboratory analysis covers samples of forensic chemistry and toxicology such as controlled drugs and other police exhibits. The SGL has been accredited since 2002 according to European Standard EN ISO/IEC 17025:2005 in many areas of its competence.



VISION AND MISSION

The vision of the SGL is to substantially contribute to the improvement of quality of life by providing reliable and high quality services while driving towards continuous development and excellence. Having as moto *“Excellence for Better Contribution to the Quality of Life”*, the SGL’s strategic objectives, focused on its vision and mission, are:

- Safeguarding public health
- Consumer protection
- Facilitation of fair trade and competitiveness
- Responding timely and reliably to new obligations and emerging problems
- Promotion of applied research to prevent or solve emerging/existing problems
- Strengthening networking and enhancing expertise within its remit

- Scientific support to the judicial and police authorities
- Contributing to the legislative process and policy making

Continuous development and improvement, is inherent in the operation of a dynamically evolving institute, whose reliability, independence, integrity, transparency and proactiveness are fundamental principles to its constant growth.

The SGL has been established as the:

Official National Control Centre for:

- Foodstuffs
- Pharmaceuticals
- Water
- Environmental samples
- Drugs and other police exhibits
- Various consumer goods

National Reference Laboratory (NRL) for Foodstuffs. According to the Regulation 882/2004 it is an NRL on:

- Pesticide residues and dioxins
- Veterinary drug residues
- Environmental contaminants and other natural toxins
- Microbiological quality control of foodstuffs (in certain parameters)
- Genetically Modified Organisms
- Materials and products in contact with food

COOPERATION

The SGL cooperates and continuously expands its networking through research projects, collaboration protocols and agreements at:

International level

- World Health Organisation (WHO)
- United Nations Environment Programme (UNEP)
- International Atomic Energy Agency (IAEA)

European Level

- European Commission
- European Food Safety Authority (EFSA)
 - Member of the Advisory Forum
 - Focal Point
 - Member of the Communication and IT Groups and Emerging Risks Network (EMRISK)
- European Union Reference Laboratories (EURL) Network
- Network of Official Medicines Control Laboratories (OMCL - Network)
- Network of Official Cosmetics Control Laboratories (OCCL - Network)

- Joint Research Centre of EU (JRC)
- European Environment Agency (EEA)
- European Customs Laboratories (GCL)
- European Network of Forensic Science Institutes (ENFSI)
- European Academic Institutions
- Research Institutes/Foundations
- Federal Institute for Risk Assessment (BfR)
- European Monitoring of Controlled Drugs and Drugs of Abuse (EMCDDA)

National Level

- Research Promotion Foundation
- Organisations/Institutions/Universities
- Cyprus Academy of Public Administration (CAPA)
- Cyprus Monitoring Centre for Drugs & Drug Addiction (CMCDDA)
- Cyprus Anti-Drug Council
- Public Sector/NGOs

QUALITY AND SAFETY OF FOODSTUFFS AND WATER

The SGL carries out regular official controls and surveillance on foodstuffs, covering all parts of the food production chain, from the field or farm to the consumer's table. For this purpose, it generates various national control programmes in cooperation with the competent authorities (the Public Health Services, Department of Agriculture, Veterinary Services, Department of Labour Inspection, Municipalities, etc.). Controls are of a preventive nature and focus mainly on basic foods that are consumed frequently or have a specific problem and on foodstuffs expected to be consumed by vulnerable groups of the population such as children.

The SGL goes one step beyond the analysis. It evaluates the degree of exposure to toxic sub-

stances and to related risks, therefore, providing scientifically sound advice to competent authorities for risk management through appropriate measures.

Twelve specialised laboratories with highly skilled and experienced personnel and state-of-the-art equipment, support and guarantee the extensive analytical control of the highest standards. Surveillance and control is carried out based on annual and multi annual programmes in the following areas:

- Food additives and food flavouring substances
- Veterinary drug residues in meat and animal products
- Pesticide residues mainly in fruit and vegetables, cereals, baby food and products of animal origin
- Persistent organic pollutants, e.g. PCBs, dioxins
- Mycotoxins, e.g. in cereal products, dried nuts and milk
- Environmental contaminants in foodstuffs such as heavy metals, nitrates/nitrites and polycyclic aromatic hydrocarbons
- Microbiological quality of foodstuffs
- Chemical and microbiological quality control of natural drinking and bottled water
- Radioactivity levels in foodstuffs
- Materials and products in contact with food and various substances, including migratory and endocrine disrupters
- Correct labelling and adulteration of food products
- Nutritional value of foodstuffs and food composition tables of traditional food

- Evaluation and patenting of copyrights of traditional products
- Authenticity and geographical origin of food products and of alcoholic drinks
- Genetically Modified Organisms
- Allergens
- Customs samples
- Food supplements

RISK ASSESSMENT IN THE AREAS OF FOODSTUFFS AND WATER

Risk assessment is carried out for the exposure of the population to chemical substances, to microbiological or other hazards from food consumption (Regulation No. 178/2002), within the framework of its competencies and its participation in the National Food Safety Council.

The SGL provides assistance in the support and development of policy at national, european and international level, on issues regarding legislation, laboratory testing, research and quality assurance. Furthermore, the SGL contributes to the strengthening of trade and competitiveness of Cyprus products.

ENVIRONMENT AND HEALTH

The SGL has a unique infrastructure, in Cyprus, to cover chemical, microbiological, virological, ecotoxicological and radiological aspects of environmental monitoring and pollution control, including the control of various toxic substances within a holistic and comprehensive approach.

Seven specialised labs provide a wide range of highly sophisticated analytical services, which keep abreast with the latest worldwide scientific and technological trends. The SGL as a vital supporting service of the environmental authorities, it utilises its state-of-the-art infrastructure and expertise aiming at the:

- Continuous support, development and implementation of the environmental policy and legislation by providing reliable laboratory results and expertise.
- Development of effective mechanisms for the early detection of pollution with an ultimate goal to contribute to the prevention and the long term safety and sustainability of the water resources.
- Investigation of the links between environment and health and, in particular, the effects of pollution on health, which aims at the prevention and reduction of potential health hazards originating from environmental factors, as well as support of political decisions. Emphasis is also given to the quality of indoor air and the effects of toxic substances on children. In addition, human biomonitoring is being developed in order to investigate the real levels of toxic substances in the human body.
- Furthermore, new programmes are being developed, that focus on new potentially dangerous substances and emerging hazards, such as endocrine disruptors in water.

Indicative monitoring areas include:

- Indoor and outdoor air pollution
- Contamination and pollution of water resources (surface and underground water, sea water)
- Quality of treated domestic and industrial effluents (recycled water)
- Pollution of sediments and soil
- Radioactivity levels in the environment
- Human biomonitoring

The SGL participates actively in the National Strategy for the Adaptation of Climate Change, in the Action Plan on Environment and Health, as well as in sustainable development. In addition, SGL participates in the national committee dealing with the Directive on Priority Substances.

PHARMACEUTICAL PRODUCTS

Since 1938, the SGL has developed the necessary infrastructure and expertise for the physicochemical and microbiological official quality control of medicinal products with the following objectives:

- To secure the quality, safety and efficacy of pharmaceutical products for human consumption: these include not only those currently on the market but those supplied to the public hospitals.
- To secure the quality, safety and efficacy of veterinary medicinal products.
- To substantially contribute to the updating of procedures related to the pharmaceutical quality control of the Ministry of Health and the Veterinary Services.

Quality controls of pharmaceutical products are carried out on a risk-based programme in collaboration with the Pharmaceutical and Veterinary Services, as well as within the framework of the European Network of Official Pharmaceutical Control Laboratories of the Council of Europe, in which the SGL actively participates.

The SGL has also participated in the preparation of the Counterfeit Medical Products Convention (Medicrime Convention) of the Council of Europe. The Convention was signed by the Republic of Cyprus, in October 2011 in Moscow.

COSMETICS AND OTHER INDUSTRIAL PRODUCTS

The SGL is also the official laboratory for the quality control of cosmetics, in collaboration with the Pharmaceutical Services of the Ministry of Health. Quality control of cosmetic products focuses on:

- Identification of those products that do not meet the requirements of current legislation, as well as detection of prohibited substances
- Evaluation of their microbiological quality
- Protection of consumer health and rights
- Securing fair competitiveness among products and fair trade

The SGL has on several occasions identified cosmetics that were non-compliant with the current

legislation, which were uploaded on the Rapid Exchange of Information System for industrial products (RAPEX) through the Competent Authority.

Other areas of control aiming towards consumer protection and safety are:

- Children's toys (control includes chemical and mechanical/physical properties) with particular emphasis on phthalates, which are endocrine disruptors and heavy metals.
- Consumer goods such as erasers, markers, clothes for azo dyes etc. This control is implemented for the presence of hazardous chemicals, under the Chemicals Act of 2010 and the European Regulation REACH.

FORENSIC CHEMISTRY AND TOXICOLOGY

Another objective of the SGL is to provide independent and reliable laboratory data and give impartial and objective scientific expert witnessing in court, to support the Police and other law enforcement authorities, as well as international efforts in the fight against crime and drug trafficking. Furthermore, its assistance to forensic coroners in unnatural death investigations as well as its role in assisting with emergency hospital poisoning cases, is of vital importance.

Laboratory analysis covers the following areas of activity:

- Illegal drugs, psychotropic substances
- Exhibits from arson cases
- Explosives/explosive residues/gunshot residues

- Trace evidence
- Biological samples for the determination of alcohol, narcotics and psychoactive drugs, pesticides, carbon monoxide, heavy metals and other poisons.

RESEARCH

Research is an important pillar for the continuous scientific and technological development of the State General Laboratory (SGL). Research carried out contributes towards problem preventing/solving, as well as supporting policy decisions and legislation. The main areas of research cover especially food safety, water, environment and health, food authenticity and geographical origin, as well as narcotics. Research is carried out primarily with EU funds but also with national funds from the Research Promotion Foundation and the Ministry of Health. The results of these research activities are presented in European Conferences/Workshops, published in international well established scientific journals, as well as in the SGL's website and in the local press for keeping updated both the scientific community and the public at large.

State General Laboratory

The Figure below, illustrates the SGL's scientific publications/presentations for the period of 2000-2013:

