

Centre Pasteur du Cameroon (CPC)

It was created in 1959 in. main mission, the **fight against infectious diseases** it has since 1985 an annex to Garoua (CPCAG), and since 2004 and office in Douala.

Chief Executive Officer: [Dr. Guy Vernet](#)

Scientific Direction

- **public health activities** (surveillance of infectious diseases, quality control and building laboratory capacities)
- Research **physicochemical and microbiological analysis of water and food** and the environment,
- Functional **monitoring** of accredited reference laboratories,
- to ensure the **quality and quantity of reagents** and consumables required for these activities,
- the **reception of students**: masters, doctoral,
- respect for **ethical** constraints,

Delegated management of the Annex to Garoua

This department provides **public health services** and missions in the far north region and the subregion. The Annex to Garoua is also a **disease surveillance** benchmark including **meningitis and cholera**.

Public health

- **Yellow fever**
 - The CPC is the **National Reference Laboratory (NRL)** for the monitoring of yellow fever.
- **Measles**
 - The CPC is the **NRL for measles surveillance**.
- **Polio**
 - The CPC's **National WHO reference** laboratory and between countries for the **Surveillance of Poliomyelitis** for the following countries: Cameroon, Chad, Gabon, Equatorial Guinea, and Sao Tome and Principe.
- **Human influenza**
 - The CPC is the **National Reference Centre for Influenza (CNRG)** for Cameroon and **member of the WHO Global Network** of Influenza Surveillance (GISN).
- **Rabies**
 - The CPC is **responsible for laboratory confirmation** of suspected cases of rabies in dogs in Cameroon and also in the case of suspected human rabies.
- **Meningitis**
- **Epidemics of diarrhea**
 - The CPC is responsible for laboratory **confirmation of cholera** cases.
- **Epidemiological surveillance THE CPC-AG**
 1. The **surveillance of meningitis** in the area of the North

2. [Surveillance of cholera](#) in the area of the North
 3. The [malaria surveillance](#) in the area of the North
 - Emergence of [resistance to artemisinin](#) derivatives.
 4. The [influenza surveillance](#) in the area of the North
 5. Monitoring in the various areas of the North
- **Quality control of CTA and UPEC of Cameroon on the monitoring of people living with HIV (C2D Health Project).**
 - **MDR-TB**
 - The CPC is NRL for [tuberculosis](#) for this purpose coordinates the lab network and surveillance of resistance.

EPICAM Project

The objective is to ensure the [establishment of a network for epidemiological surveillance of tuberculosis](#).

Supported by

- Ministry of External Relations of Cameroon (MINREX), French Ministry of the Interior, under the Franco-Cameroonian Solidaire Development Project) met on NTP (National Plan fight against tuberculosis), the University of Yaounde 1, the NRL tuberculosis (CPC) and Medes (medical subsidiary of CNES Toulouse, France).

The project, approved in [July 2012](#), has an initial budget of € 200,000 and its planned duration is [6 years](#).

One goal is [the implementation of an electronic network for tuberculosis surveillance](#) deployed in at least fifty sites through IMOGENE platform that is the subject of technology transfer by MEDES.

Research

[Priority themes of public health](#): malaria, HIV (PMTCT and molecular characterization of strains), viral hepatitis, influenza, arbovirus infections, tuberculosis, Buruli ulcer, the antibiotic resistance, the food safety and health information systems.

1- Malaria – [Head](#):

1. The Cluster of Excellence in [Epidemiology of malaria](#) (PEEP)
 - a. The main objective is the establishment of an attractive cluster of excellence, sustainable on [malaria epidemiology](#) and the [development of the drug resistance surveillance](#) activity Breast Centre Pasteur of Cameroon.
2. The research group at 4 years ([G4](#)): RIIP support to research on malaria
 - a. Dr. Lawrence Ayong was Team Leader at the Institute Pasteur of Korea and we joined in August 2013. He worked in the [identification group of new antimalarials](#).
 - b. The topics that will be addressed during this G4 are:
 - i. Development of [new tools for molecular and serological diagnosis](#) for the sensitive and specific detection of [gametocytes](#) in Cameroon.

- ii. Studies on the [immune response](#) of the host against the parasite [gametocyte stage of malaria](#) in humans
- iii. Parasitological investigations on the [effects of malaria on gametocytogenesis and transmission](#) of malaria in Cameroon.

2- The flu and respiratory infections – [Head:](#)

1. [Surveillance of human influenza](#)
2. [Factors associated](#) with severe forms of influenza in Yaoundé
 - a. This project receives financial support from INSERM and partnership with the Jamot Hospital and the hospital Essos in Yaoundé and the Institute Pasteur [Senegal](#) and [Madagascar](#).
 - b. Help to provide arguments to [develop prophylaxis](#) (vaccine, antiviral prophylaxis), to [develop an algorithm](#) and a [first-line treatment](#) of severe influenza infections.
 - c. It will document the [interactions between pathogens](#) (viruses or bacteria).

3-Buruli ulcer - headed by Dr. [Marie-Christine Fonkoua](#)

Buruli ulcer, skin extremely disfiguring infectious disease is common in Cameroon is due to [Mycobacterium ulcerans](#).

1. Biological [monitoring](#) of Buruli ulcer
2. [Antibiotic resistance](#)
 - a. Identification and [antibiotic susceptibility testing](#), and for molecular [typing of bacterial](#) strains.
 - b. [Reference](#) laboratory for the program "[Gonococcal Antimicrobial Surveillance Program \(GASP\) WHO](#)".
 - c. Molecular characterization (epidemiology) of resistance from human and avian salmonella to antibiotics.
 - i. Focus on finding the factors of resistance, virulence and clonality of multiresistant strains.
3. Study on [the mode of transmission](#) of Buruli ulcer
 - a. It is internationally coordinated by the Institute Pasteur and Cameroon. It is conducted in partnership with the University of Yaounde 1, IRD Cameroon and [France](#) and the Universities of Angers in [France](#), Melbourne in [Australia](#) and Harvard in the [US](#).

4- Influenza

5- Arbovirus

6- Poliomyelitis

7- HIV-AIDS – [Head:](#)

HIV-AIDS is the Pasteur Research Centre the main theme.

1. [Biology of care for patients living with HIV](#)
2. [Quality control](#) of CTA and UPEC of Cameroon on the monitoring of people living with HIV
 - a. To establish a Quality Assurance system in the CTA and UPEC [for achieving CD4 assays](#) and analyzes bases in the care of patients living with HIV.
3. [Molecular epidemiology](#) of HIV infection in Cameroon
 - a. RECAMO project
 - i. "[Prevalence and characterization of HIV-1](#) infections double M and HIV1-O and recombinant forms of HIV-1 M + M or not associated dual infection circulating in Cameroon"
 - b. PEDIACAM Projects I and II
 - i. I: [Impact of early antiretroviral combination therapies](#) and the Expanded Program on Immunization (EPI), on the evolution and management of infants infected with HIV-1 in Cameroon
 - ii. II: [Become to 5 years of children infected by HIV treated](#) early with antiretroviral combination therapy in Cameroon in the project ANRS 12140-PEDIACAM I
4. Project PAANTHER 01
 - i. [Tuberculosis diagnosis](#) Improvement in children infected with [HIV in Asia \(Cambodia, Vietnam\)](#) and Africa ([Burkina Faso, Cameroon](#))
5. PRIVAR Project
 - i. "Analysis of the [cellular response to measles vaccine](#) in infants infected with HIV in Cameroon"
6. Chronovac Project
 - i. "Study of the [immune response to vaccines against yellow fever and measles](#) in young children aged 9 to 15 months living in the yellow fever endemic zone"
7. PRENAHTEST Project
 - i. "Public Health Impact [of prenatal HIV counseling](#) intervention oriented couple in low- / mean prevalence of HIV"
8. Project "ROAD"
 - i. "Awareness, [prevention and screening for HIV AIDS](#) and STDs among truck drivers in Cameroon"
9. SIMECAM Project
 - i. "Support for the involvement of partners in [prenatal HIV testing](#) and use of PMTCT interventions / MNCH / PECP in semi-urban and rural areas in Cameroon"
10. DYNAMO project, led by DR. Kfutwah Anfumbom
 - i. "[Molecular diversity of HIV-1 group O](#) variants in Cameroon and counseling"

8- Tuberculosis - headed by [Dr. Sara Eyangoh](#)

Identification and typing of strains and the diagnosis of TB drug resistance. It hosts the National Tuberculosis Reference Laboratory of Cameroon who coordinates the monitoring of MDR-TB in Cameroon and the quality assurance program of the Cameroon TB laboratories

1. Evaluation of rapid TB diagnostic tools
2. Quality Assurance programs Tuberculosis and training
3. Surveillance of MDR-TB

9- Hepatitis viruses and other oncogenic viruses – [Head:](#)

Vaccination against hepatitis B is now integrated with the EPI Cameroon, however, research projects also concern HEV, especially HCV.

1. Diagnosis and monitoring of viral hepatitis
 - a. Biological monitoring of hepatitis, and the dosage of viral load and genotyping of the hepatitis C virus are in place
2. Characterization of new serum biomarkers of Primary liver cancer in Equatorial Africa
 - a. The objective of this study is to identify new genetic markers associated with circulating an increased risk of developing hepatocellular carcinoma in patients with liver disease in Cameroon.
3. Prevalence and genetic diversity of hepatitis E virus in pig and human populations of Cameroon Evaluation of the inter-species transmission.
4. Epidemiology of viral hepatitis B, C, and delta in Cameroon: analyzing samples of the Demographic Health Survey (DHS) 2011 ANRS
 - a. Collaboration with Institute Pasteur and the universities of Sherbrooke, Canada and Paris Diderot.
5. Molecular diagnosis Papillomavirus (HPV)

International Partnership

1. National Agency for Research on AIDS and Viral Hepatitis (ANRS)
2. National Research Agency (ANR)
3. National Health Security Agency for Food, Environment and Labour (ANSES)
4. Department of Human Health Services (DHHS)
5. Deutsche Gesellschaft für International Zusammenarbeit (GIZ)
6. Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)
7. Total Foundation
8. Sanofi Espoir Foundation

9. GlaxoSmithKline Foundation (FGSK)
10. Fund for the Implementation of Standards and Trade Development Facility (STDF)
11. Helen Keller International (HKI)
12. Institute of Microbiology and Infectious Diseases (IMMI)
13. Institute for Research and Development (IRD)
14. Opec Fund for International Development (OFID)
15. World Health Organization (WHO)
16. United Nations Food and Agriculture Organization (FAO)
17. United Nations Industrial Development Organization (UNIDO)
18. Franco Cameroonian Inclusive Development Programme (PRODESO)
19. International Network of Pasteur Institutes (RIIP) through Concerted Actions Inter Pasteur (ACIP) and Transversal Research Project (PTR) and the creation of groups to 4 years (G4)
20. Sanofi Pasteur
21. Cooperation and Cultural Action (SCAC) of the Embassy of France
22. UNITAID -expand TB (Expanding Access for New diagnostic tools)