

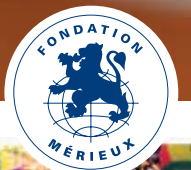


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ANNUAL REPORT 08

ROOTS
FOR
LIFE



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EDITORIAL



FOUNDED IN 1967 BY DR. CHARLES MÉRIEUX,
FONDATION MÉRIEUX
IS AN INDEPENDENT FAMILY FOUNDATION
WITH OFFICIAL CHARITABLE STATUS.

Its mission is to fight infectious diseases affecting developing countries by enhancing local capacities. It has four main areas of action: applied research, training and sharing of knowledge, strengthening of health infrastructures and support to patients.

With the support of **Fondation Christophe et Rodolphe Mérieux**, also a family based foundation, it develops a network of biology laboratories dedicated to research and training in the field, at the heart of infected areas.

Current field sites are located in Mali, Laos, Haiti, Madagascar and China.

In 2008, Fondation Christophe et Rodolphe Mérieux awarded the price Christophe Mérieux to Professor François Nosten for his work on malaria in Thailand.

While it has remained faithful to its original mission, that of combating the threat of infection worldwide, Fondation Mérieux has seen profound changes in recent years.

Dr Christophe Mérieux sought a foundation that was active and committed in the field, attentive to and at the service of the most underprivileged patients. Due to our belief in his vision shared by many of you who have accompanied us in this adventure, we can now be proud of our achievements to date.

2008 was a particularly productive year, with the increase in our applied research teams, the structuring of an international research network and mobilization on major healthcare themes. In its action, the Foundation has benefited from the expertise of its Scientific Committee and the support of its Board of Management, for which I am particularly grateful.

While the fight against disease is far from over and too many children, women and men are still unable to access decent healthcare, the Foundation is making its own humble headway on the pathway to hope. We set up local laboratories all over the world, our researchers work relentlessly on new solutions in the fight against emerging pathogens, we train men and women who will play an active role in their country's healthcare...

We still have a long way to go and in a particularly difficult international economic context, it is our duty to mobilize all available resources for new projects. Now, more than ever, we are counting on our partners throughout the world, so that with their support we can nurture roots for life.

Alain Mérieux



MILESTONES OF 2008

➔ STRENGTHENING OF HEALTH INFRASTRUCTURES

Cambodia

Refurbishment of medical biology laboratory at the Khmer-Soviet Friendship Hospital in Phnom Penh

Haiti

- Set-up and fitting-out of a Rodolphe Mérieux Laboratory in the new IMIS Center (GHESKIO) in Port-au-Prince

Laos

- Completion of Christophe Mérieux Center in Vientiane
- Refurbishment of medical biological laboratory at Takhet Hospital
- Supply of laboratory reagents to Mahosot Hospital

Lebanon

- Signing of an agreement with Saint Joseph University in Beirut to build a Rodolphe Mérieux Laboratory

Madagascar

- Refurbishment and inauguration of biology laboratory at the Antsirabe Regional Public Hospital

India

- Continuation of the partnership with the NGO SOS Children Village for the construction of a medical centre in the Tamil Nadu region.

➔ TRAINING AND SHARING OF KNOWLEDGE

West Africa

- Creation of the RESAOLAB project with Agence Française de Développement (French Development Agency) to reinforce diagnostic laboratories in three countries: Burkina Faso, Mali, Senegal
- Organization of a conference on neglected tropical diseases in Bamako
- Implementation of a post-doctoral grant program for research projects on neglected tropical diseases, in partnership with four European foundations

South-East Asia

- Organization of distance training on epidemiology in Cambodia and Laos, in conjunction with NTI-Global Health Security Initiative and the University of Edinburgh

**Mali**

- First year of BAMS (Bachelor of Science in Biological and Applied Medical Sciences) and selection of second year

France – Les Pensières

- Extension of the Conference Center
- 9th ADVAC (Advanced Vaccinology Course) in partnership with the University of Geneva
- First "Moving forward the diagnosis of infectious diseases" conference focusing on tuberculosis
- Conference on Chagas disease
- Journalists Workshop – a Worldwide Risk : the Emerging Infectious Agents

**→ APPLIED RESEARCH**

- Launch of GABRIEL (Global Approach for Biological Research on Infectious Epidemics in Low-income countries) laboratory network
- Integration of the research teams of the Emerging Pathogen Laboratory in Lyon and the Christophe Mérieux Laboratory in Beijing
- Epidemiological studies on respiratory diseases in conjunction with HCL (Lyon Civil Hospices) and three Chinese hospitals
- Partnership with FioCruz in Brazil in the field of respiratory infections
- Identification of new pathogenic agents responsible for severe respiratory infections
- Development of new diagnostic tools for pneumonia and bronchiolitis
- Implementation of rapid multi-resistant tuberculosis detection techniques in Rodolphe Mérieux Laboratories
- Scientific grants awarded to 9 junior researchers

→ PATIENT SUPPORT**Cambodia**

- Partnership with the association "1001 Fontaines pour Demain" for the quality control of water dispensed in villages

Ethiopia

- Partnership with the NGO InterAide and the European Union for tuberculosis diagnosis and treatment

Haiti

- Publication of the results of the microloan program for women infected or vulnerable to HIV/AIDS

Madagascar

- Support for bush facilities via training and equipment donations

”2008 CONSOLIDATING OUR SKILLS”



After refocusing its mission and reorganizing its structure in 2007, Fondation Mérieux asserted its strategy in 2008 with the reinforcement of its capacity for international actions.

This international expansion resulted in tangible progress on projects in our four main fields of activity:

- **Strengthening of Health infrastructures**, with the completion of work projects in Haiti and Laos, the refurbishment of regional hospital laboratories in Madagascar and Cambodia, and a new project in Lebanon.
- **Training and sharing of knowledge**, with new conferences held in Les Pensières on public health topics of worldwide importance, and with the RESAOLAB project with Agence Française de Développement (AFD) to enhance the potential of biology laboratories in Senegal, Burkina Faso and Mali.
- **Applied research**, with the integration of two applied research units in France and China and the launch of the GABRIEL international network for biologists actively involved in research on emerging pathogens. Our agreement with the French national research organization INSERM was renewed for a further 5-year period in December 2008, providing an opportunity to reassert our desire to see the Jean Mérieux P4 Laboratory opened to all public and private experts from all countries.

- **Patient support**, following the resounding success of our microcredit actions in Haiti for women infected with HIV/AIDS, this program is to be extended to various African countries. Throughout 2008, Fondation Mérieux teams have striven to apply the strategic orientations defined in 2007, conducting actions in favor of populations affected by infectious diseases in developing countries.

These actions were achieved with support from partners including Fondation Christophe et Rodolphe Mérieux (under the auspices of Institut de France), Sanofi Aventis and bioMérieux. Building on this international outlook, Fondation Mérieux intends to increase its operational abilities by developing partnerships similar to the recent venture with AFD in Africa.

Guided by the vision of its founder, Dr. Christophe Mérieux, and faithful to his “without borders” approach, Fondation Mérieux aims in the years to come to assert its position as a leading field organization in the fight against infectious diseases and their intolerable toll on the most vulnerable.

Benoît MIRIBEL

Director general





STRENGTHENING OF HEALTH INFRASTRUCTURES

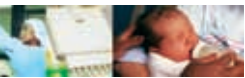
**FONDATION MÉRIEUX USES ITS EXPERTISE TO REINFORCE
THE BIOLOGY POTENTIAL OF EMERGING COUNTRIES.**

Rodolphe Mérieux Laboratories, an international network of local laboratories, are at the heart of its action. Set up with financial support from Fondation Christophe et Rodolphe Mérieux, these laboratories comply with the most stringent international standards and have an epidemiological monitoring, research and training role. The aim is to set up reference centers for infectious diseases in partnership with local players that can meet their healthcare needs by means of suitable resources.

Rodolphe Mérieux Laboratories are devised to respond to local infectious priorities by developing clinical studies or molecular and medical biology research. They are generally devoted to applied biological research in the field of infectious diseases affecting developing countries.

To supplement its action in these countries, Fondation Mérieux also refurbishes and fits out regional hospital medical testing laboratories in order to conduct quality medical testing throughout the territory. It also provides training for the personnel in these units.

In 2008, the Foundation continued the actions initiated in Madagascar, Cambodia, Laos, Haiti and Mali, and started a new project in Lebanon, in conjunction with Saint-Joseph University, which in 2010, will increase the number of Rodolphe Mérieux Laboratories to 6.



→ LAOS

— **The building of the Christophe Mérieux Center in Vientiane started in 2006 was completed in the course of 2008.**

It was officially inaugurated in January 2009 and handed over to the Laotian Ministry of Health, on behalf of which it was built.

Fondation Mérieux trained the manager of the Rodolphe Mérieux Laboratory and has seconded an expert for 2 years to help develop the Center's activities.

The Christophe Mérieux Center will be devoted to training, medical biology research and care for public health issues in Laos such as HIV, tuberculosis, viral hepatitis and food safety.

— **Its actions will focus on four main areas:**

- Provision by the Rodolphe Mérieux Laboratory, specialized in infectious disease, of medical tests not currently available in Laos, without competing with the other players already present (HIV, HBV, HCV viral loads, chlamydia and gonococcus screening using molecular process).
- Improvement of training on molecular biology through the set-up of long-term partnerships between public hospital laboratories and the University of Health Sciences in Laos.
- Set-up of a knowledge sharing platform in the field of public healthcare through the new conference center and its website.
- Involvement in the development of food and water quality control programs in Laos.

— **In addition to its action in these countries, the Foundation is also involved in two regional hospitals.**

Thus, the Foundation supported Thakhek Hospital (northern Laos) by completely refurbishing the facility's biology laboratory.

This hospital has been receiving support from the Rhône-Alpes Region and the NGO ACFL for many years. thanks to to the quality of the staff and the infrastructures, it is a model hospital. The laboratory staff have a high level of qualification and are genuinely motivated.

A new medical testing laboratory was built in 2008. Inaugurated in February 2009, this laboratory can now serve the needs of a large population reservoir and develop according to changing needs.

The Foundation is also involved in Mahosot Hospital (Vientiane), by supplying bacteriology reagents to the hospital's microbiology laboratory.

→ HAITI

— **Cooperation with GHESKIO Centers**

As part of the cooperation initiated with GHESKIO Centers since 2005, the Foundation contributed in 2008 to the design and fitting out of the Rodolphe Mérieux Research Laboratory in the IMIS (Institut des Maladies Infectieuses et de Santé de la Reproduction) Center in Port-au-Prince. This laboratory is equipped with a P2 type "suite" and offers an effective research tool. An expert biologist from the Foundation has been assigned to develop research programs at the Rodolphe Mérieux Laboratory, in conjunction with Professor Jean William Pape's teams.

— **The first studies relate to:**

- A multi-center study on multi-resistant tuberculosis (MDR-TB).
- The transfer of laboratory protocols and tools to start in 2009.

The GHESKIO Centers have joined the GABRIEL laboratory network.

These new infrastructures inaugurated in February 2009 will enable improved coverage of the needs of the Haitian population, which has been severely affected by a large number of infectious pathogens. They will offer a large number of services including care of patients suffering from tuberculosis, AIDS and other sexually transmitted infections, and will provide quality antenatal care.

→ CAMBODIA

— **Inauguration of Medical Biology Laboratory at Khmer-Soviet Friendship Hospital in Phnom Penh**

On behalf of the Cambodian Ministry of Health, Fondation Mérieux refurbished the medical biology laboratory in Khmer-Soviet Friendship Hospital in Phnom Penh. In this way, a microbiology unit was set up, with the upgrading of the hospital's technical platform and training of qualified human resources required for its operation.

The refurbishment of this part of the hospital will make it possible to offer health professionals with premises in compliance with international standards and develop diagnostic resources for practitioners, with the laboratory tests required performed systematically on-site. In addition to saving time, this will also reduce costs, improve hygiene and quality and thus decrease the hospital's dependency on external private laboratories.

To fund this refurbishment, Fondation Gattefossé and Fondation Mérieux signed a partnership agreement in October 2008 whereby Fondation Gattefossé funded the refurbishment of the premises intended for pharmacists and Fondation Mérieux covered the cost of the refurbishment of the medical biology laboratory.

**—Growth of Rodolphe Mérieux Laboratory in Phnom Penh**

Founded in 2005 in, and in conjunction with the Faculty of Pharmacy, the Rodolphe Mérieux Laboratory is undergoing considerable expansion and now includes three P2 type chambers.

The various partnerships set up (ANRS, DSO laboratory in Singapore, Institut Pasteur in Cambodia) offer a stimulus for research and diversify the sources of funding.

Nine students worked in the laboratory in 2008. The research conducted particularly related to the metabolism of antiretrovirals in patients, pathogens carried by rodents and water, simultaneous infections with several plasmodium (Malaria) species, and the genotype study of G6PD deficiencies (genetic condition causing a red blood cell enzyme deficiency).

The cooperation with the Foundation's various historical partners continued for the organization of a Post-graduate diploma in Medical Biology for students of the Faculty of Pharmacy in Phnom Penh in 2009.

**→ MADAGASCAR****—Inauguration of Antsirabe laboratory**

After several months of refurbishment work, the medical testing laboratory at the Antsirabe regional public hospital was inaugurated in April 2008.

Antsirabe hospital is the only local medical and surgical healthcare facility for the urban and rural communities in the entire region and its medical testing laboratory was in decay, with insufficient material and human resources to provide satisfactory basic tests.

For this reason, a large proportion of tests was sent to the capital Antananarivo, resulting in a number of problems: additional costs, possible errors, breach in the cold chain, additional time required to obtain results, etc.

Therefore, in partnership with the Madagascan Ministry of Health, Fondation Mérieux upgraded the laboratory at Antsirabe hospital, in order to increase the care quality provided to the population in the region.

At the present time, Fondation Mérieux supplies the necessary diagnostic systems and reagents and is training the laboratory personnel until the laboratory is fully autonomous.

—Continuation of work on the Antananarivo Rodolphe Mérieux Laboratory

The building of this laboratory on the Faculty of Medicine site continued, but encountered some problems, partly due to the political instability of the country and subcontracting issues, which delayed the project. The project has been restarted and should be completed by late 2009. This new Rodolphe Mérieux Laboratory will house research and training activities in the faculty.

Its director has already been selected by the Ministry of Health and is currently following a Fondation Mérieux training program.

→ MALI**—Rodolphe Mérieux Laboratory in Bamako: cooperative center of major healthcare bodies**

The activities conducted in 2008 allowed to set up an epidemiological data base on diseases observed in Sub-Saharan Africa. This tool is particularly useful for international health bodies, such as the World Health Organization (WHO).

Furthermore, Fondation Mérieux organized training for Malians on the use of bio-chip technologies in conjunction with Professor Ogobara Doumbo's team and the Malaria Research and Training Center in Bamako on the study of malaria resistances.

—BIOMALI ACTION Program: significant results

2008 saw the continuation of this program co-funded by the European Commission and conducted in conjunction with the Malian Ministry of Health, relating to the upgrading and networking of medical testing laboratories in Mali. In 2008, after 3 years of implementation of the program, 73 public laboratories have been equipped with harmonized diagnostic reagents and systems, with the implementation of a stock management tool. A second international invitation to tender for materials (reagents and consumables) was issued to continue this action. 263 professionals were trained in the field of biological diagnosis and follow-up of major diseases (malaria, HIV/AIDS, tuberculosis). Diagnostic procedures have been harmonized within all laboratories and validated by the Health Ministry, to set up quality assurance in all units.

This program will be continued from 2009 via the RESAOLAB project.

→ LEBANON**—A new project in Beirut**

Following an evaluation project in Beirut, the Foundation signed a Partnership Agreement with St Joseph University in Beirut in October 2008. The agreement aims is to open up cooperation resulting in the building and fitting out of a Rodolphe Mérieux Laboratory. This laboratory will be located on St Joseph University premises in a building under construction, the Health Technology Center.

The Rodolphe Mérieux Laboratory, which will be completed in 2009/2010, will essentially have higher education and research roles. It will work toward the educational and public healthcare aims of St Joseph University and will join the other members of the GABRIEL laboratory network.



TRAINING AND SHARING OF KNOWLEDGE

FOR THE SUCCESSFUL REINFORCEMENT OF
THE POTENTIAL OF DEVELOPING COUNTRIES,
FONDATION MÉRIEUX SETS UP HEALTHCARE
PROFESSIONAL TRAINING PROGRAMS.

This action is closely linked with its historic aim
to disseminate scientific information and innovation
widely on a global level.

TRAINING LOCAL HEALTHCARE PROFESSIONALS

➔ RESAOLAB: INCREASING BIOLOGICAL DIAGNOSTIC QUALITY AND ACCESS IN SUB-SAHARAN AFRICA

In 2008, Fondation Mérieux and the Health Ministries of Burkina Faso, Senegal and Mali set up a joint project to increase the potential of diagnostic laboratories in these three countries of West Africa. The Agence Française de Développement (AFD) has confirmed its financial support for this project.

The purpose of this project, named RESAOLAB, representing €4 million over a three-year period, is to develop and support the biomedical testing laboratory network in its continuous training projects for laboratory personnel. It is in line with the ACTION BIOMALI program, implemented by Fondation Mérieux since 2005 in Mali, which will come to an end in late 2009.



The reinforcement of the laboratory network will support the set-up of programs to combat priority diseases such as AIDS, tuberculosis, malaria and other epidemic infections. As such, it will help achieve the development targets of the millennium.

The main activities of the project will be: formalization of continuous training for laboratory personnel, reinforcement of quality assurance and support for the epidemiological monitoring system. Expertise from all three countries will be pooled and a sub-regional laboratory network set up to start harmonizing practices between the countries. World Health Organization (WHO) and the West African Health Organization will be associated with the steering of the project.

➔ BAMS: FIRST GRADUATES

The first edition of the BAMS (Bachelor of Science in Biological and Applied Medical Sciences) course for laboratory technicians, organized by Fondation Mérieux in partnership with ESTBB (Ecole Supérieure de Techniciens Biochimie Biologie - Université Catholique de Lyon), was successfully completed in Mali in July 2008.

The second course, catering for 16 more laboratory professionals from Mali, Burkina Faso, Senegal and Niger, started in October 2008.

The BAMS course is managed by the Charles Mérieux Center in Bamako. The modules are taught by teaching staff from the Faculty of Science of Université Catholique de Lyon and the Faculty of Medicine and Pharmacy in Bamako.

➔ TRAINING VACCINOLOGY EXPERTS



Immunization is an important factor in global public healthcare. In 2008, the Foundation continued its vaccinology training program by organizing the **9th ADVAC** (Advanced Vaccinology Course) with the University of Geneva. For two weeks at les Pensières, this course, attended by 67 participants and some sixty speakers from all over the world covered a variety of topics, including research and development of new vaccines, epidemiological, economic and ethical issues, immunization strategies, vaccine safety and communication stakes.

Supported by Sanofi Pasteur MSD and with the University of Geneva, the Foundation also organized the **French Vaccinology Course** for more than 250 healthcare professionals from Lyon, Paris and Reims.

Finally, the Foundation set up the **third international vaccinology workshop** in Tokyo to compare vaccine practices and discuss global immunization strategies to be implemented for the future. Organized under the aegis of the Japanese Vaccinology Society and the French Embassy, this seminar catered for 130 scientists and representatives from public and private Japanese organizations.

➔ DISTANCE EPIDEMIOLOGY TRAINING IN SOUTH-EAST ASIA

In 2008, the joint project of the NTI-Global Health Security Initiative, Fondation Mérieux and the University of Edinburgh, made it possible to set up "distance" training qualification courses on human and animal health. These courses are aimed at higher education students in Cambodia and Laos, veterinarians and epidemiologists, to offer them quality training without obliging them to leave their country to study.

Developing the qualifications of professionals in human and veterinary medicine, environmental health and related sectors, is essential to reinforce the potential to combat

infectious epidemics in this region. With high population densities and the close proximity of humans and animals in agrarian economies, the Mekong basin is a melting-pot of zoonoses and new infectious diseases such as SARS and avian influenza.

➔ CAMPAIGN AGAINST NEGLECTED TROPICAL DISEASES

While there is increasing international awareness on AIDS, malaria and tuberculosis, developing countries are devastated by a large number of "neglected" diseases. Leishmaniasis, onchocerciasis, lymphatic filariasis, schistosomiasis and trypanosomiasis are all diseases with a low mortality, but a particularly high morbidity, as they affect over one billion people. These particularly debilitating diseases are a contributing factor to the persistence of the poverty cycle. Controlling them represents a genuine opportunity for health and economic development.

The Foundation decided to take part in a new initiative alongside four European foundations: Fondazione Caripio, Fundação Calouste Gulbenkian, Nuffield Foundation and Volkswagen Stiftung. This consortium of foundations aims to develop research potential on these diseases in Africa. In this way, a grant program was set up for 'junior researchers in African institutions to enable them to conduct research projects on neglected tropical diseases within the African context.

The program is targeted at post-doctoral researchers currently working in Sub-Saharan countries or junior researchers aiming to work in their country of origin to reinforce local potential.

This initiative was officially launched at the conference on neglected tropical diseases held in Bamako, at the Charles Mérieux Center, in September 2008. Twelve researchers received grants for 70,000 to 150,000 over three years.





EXTENSION OF → LES PENSIÈRES

The Fondation Mérieux Conference Center, "Les Pensières", located on the banks of Annecy Lake, plays a crucial role in the Foundation's ambition to promote international scientific training and information.

Since it was founded by Doctor Charles Mérieux, it has welcomed numerous conferences and training courses, offering unique opportunities for meetings and discussions between scientists - researchers, healthcare professionals, laboratory directors and technicians, and industrialists - from industrialized and developing countries. In order to reinforce this role, the Foundation chose to extend the center. The extension which was completed in 2008 has created more bedrooms and work areas and expanded the center's capacity considerably.



DISSEMINATING SCIENTIFIC INFORMATION AND INNOVATION

One of the Foundation's aims is to make advanced scientific information generally available and also help raise international awareness and mobilization on major public healthcare issues. Tuberculosis and neglected tropical diseases were the main themes of its action in 2008.

→ FOCUS ON NEGLECTED TROPICAL DISEASES

In line with its action alongside foundations to promote research on neglected tropical diseases, the Foundation decided to start a cycle of conferences on this theme.

The first conference in this cycle was devoted to Chagas disease, a public healthcare issue in South America, on which the Foundation has been working for several years.

This conference, organized at Les Pensières in May 2008, in partnership with various international bodies involved in this disease, including WHO, offered an opportunity to consolidate current knowledge on Chagas disease and analyze the most relevant strategies to control this disease.

→ PROMOTION OF DIAGNOSIS IN DEVELOPING COUNTRIES

***"Moving forward
in the diagnosis of infectious
diseases: Tuberculosis"***

In view of the importance of diagnosis in strategies to combat infectious diseases, Fondation Mérieux decided to organize an annual meeting on the diagnosis of infectious diseases in developing countries. The aim of this regular meeting is to offer the international players and decision-makers involved a discussion platform to improve the detection and follow-up of infectious disease in the countries where they are the most severe but where the conditions for reliable diagnosis are often lacking.

The first meeting, organized in May 2008 at the Les Pensières Center in conjunction with "STOP TB Partnership" and the Global Laboratory Initiative of WHO, was devoted to tuberculosis diagnosis and reinforcing the potential of laboratories in this area.

The forum was attended by over 90 participants from all over the world, including representatives of international agencies, ministries of health, NGOs, diagnostic firms, laboratory professionals and patient communities.

The new "Moving Forward" forum in 2009 will focus on malaria diagnosis in developing countries.

→ PUBLIC HEALTHCARE THEMES

Faithful to its aim to broadcast scientific innovation, the Foundation also organized international conferences in partnership with Sanofi Pasteur and other firms in the health sector on more specific public health themes. Over 600 international scientists attended these meetings:

- Impact of climate change on infectious diseases – November 2008, Les Pensières
- HPV and HIV: disease, infection and vaccination – October 2008, Les Pensières
- Standardization techniques in evaluation of vaccine response – September 2008, Les Pensières
- Evaluating acceptability of vaccine and vaccination programs: an individual and public health perspective – July 2008, Les Pensières
- International Vaccinology Symposium for Latin American Experts – June 2008 Cartagena, Colombia
- Intra-dermal immunization: An alternative route for vaccine administration – April 2008, Les Pensières





APPLIED RESEARCH

IN ITS APPLIED RESEARCH PROGRAMS, FONDATION MÉRIEUX PURSUES OBJECTIVES SUCH AS IMPROVING THE ABILITY TO DETECT AND IDENTIFY EMERGING INFECTIOUS AGENTS,

developing diagnostic tools enabling improved epidemiological monitoring on a global scale, distributing these tools extensively and promoting advanced research in developing countries.

2008 was a year of transition and structuring and saw significant progress for the Foundation: integration of its own research teams, set-up and launch of the GABRIEL international research laboratory network and significant results in the fight against respiratory diseases, pneumonia and tuberculosis.

SUCCESSFUL INTEGRATION FOR RESEARCH TEAMS

2008 saw the integration of the two research units transferred from bioMérieux to the Foundation as part of its industrial patronage. 26 people are now working in the applied research department of the Emerging Pathogen Laboratory (Lyon-France) and in the Christophe Mérieux Laboratory created in the Chinese Academy of Medical Sciences in Beijing (CAMS). These two units work on the evaluation and development of new biomarkers. They also study the identification and characterization of new pathogenic agents. As it is based in the Peking Union Medical College Hospital, the Beijing laboratory has privileged access to patient samples. The Emerging Pathogen Laboratory benefits from the proximity of the P4 Jean Mérieux laboratory exclusively devoted to research on emerging pathogens and both laboratories work closely together.



STRATEGIC PRIORITY: RESPIRATORY INFECTIONS

20% of deaths in children under the age of 5 are caused by acute lower respiratory tract infections (pneumonia, bronchiolitis and bronchitis), 90% of these deaths being caused by pneumonia. Bacterial pneumonia causes 500,000 to 1.4 million deaths each year worldwide. Naturally, these diseases (pneumonia, bronchiolitis, tuberculosis and influenza) are the Foundation's priority targets in its research programs.

→ MULTI-CENTER EPIDEMIOLOGICAL STUDIES

- In 2008, the Foundation's teams conducted epidemiological studies on respiratory diseases in conjunction with Lyon University Hospitals and three Chinese hospitals (Beijing Pediatric Hospital, Peking Union Medical College Hospital and Chao Yang Hospital). The data from these epidemiological investigations are of particular interest in that they will help guide healthcare and prevention policies for respiratory diseases. This research has given rise to several scientific publications on the infectious causes of respiratory diseases in adults and children in China and in children in France

- **Partnership with FioCruz in Brazil**

The Foundation is working together with the Oswaldo Cruz Foundation reference laboratory in Rio de Janeiro to conduct epidemiological investigations on respiratory infections. In 2008, in addition to its financial contribution to this program, it also carried out training and expertise transfer actions.

→ IDENTIFICATION OF NEW PATHOGENIC AGENTS

Detecting and characterizing unknown pathogenic agents is at the heart of the Foundation's research programs. In this way, two new viruses responsible for severe respiratory infections were identified in 2008:

- A rhinovirus group C by the Beijing unit
- A TTV virus by the Lyon teams

This research has been the subject of publications and patents.



P4 Laboratory- Jean Mérieux

→ NEW DIAGNOSTIC TOOLS FOR PNEUMONIA AND BRONCHIOLITIS

In 2008, the Foundation's teams worked on the development of multidetection tests in partnership with the U.S. company Luminex and the Luxembourg company FastTrack Diagnostics. These tests will be made available to biologists in the Rodolphe Mérieux Laboratories and reference laboratories in developing countries in 2009.

→ TUBERCULOSIS: PROMOTING RAPID AND EFFECTIVE DIAGNOSIS

Tuberculosis is a major healthcare issue, causing 1.7 million deaths and 9 million new cases every year. One third of the world's population is considered to be affected, whereas only 60% of cases are detected. The care of this disease is made even more complex and difficult by the development of multi-resistant strains and co-infections with the HIV/AIDS virus.

2008 saw the implementation of rapid multi-resistant tuberculosis detection techniques in Rodolphe Mérieux Laboratory. The techniques were evaluated beforehand by the Foundation's teams. These tests represent major healthcare stakes in that the monitoring programs set up in emerging countries are faced with frequently insufficient infrastructures and equipment, resulting in low detection of cases of tuberculosis, in turn favoring the circulation and expansion of multi-resistant strains. Nevertheless, considerable progress has yet to be achieved to identify second-line antibiotic resistance markers and provide effective detection tools. Discussions on this subject are currently in progress with the Chinese Academy of Medical Sciences which has extensive genomic research resources.



→ CAMPAIGN AGAINST INFLUENZA

As part of the strong global scientific and medical campaign against influenza, the Foundation conducts research in this field. Its objective is to anticipate the incidence of pandemics through improved knowledge of the strains of the virus. The purpose of the Lyonbiopôle program is to develop a genomic analysis tool in partnership with the U.S. company Affymetrix. This tool, which should make it possible to monitor developments in the genetic drift of influenza viruses, is intended for the influenza monitoring network set up by WHO. It should be operational in mid-2009.

OTHER TARGETS...

*In addition to its programs in the fields of respiratory infections, the Foundation continued its research on other specific diseases in developing countries: **malaria, Chagas disease, hepatitis B, hemorrhagic fever, etc.***

In this way, in 2008, the Foundation conducted research on the Crimean-Congo virus in partnership with the Health service of the French Army and the P4 laboratory to improve diagnosis.

In the field of malaria, the Foundation is involved in the research project on genetic susceptibility to this disease, headed by Professor Ogobara Doumbo at the Bamako Malaria Research and Training Center in Mali.



SUPPORTING RESEARCH IN EMERGING COUNTRIES

→ CHRISTOPHE MÉRIEUX PRIZE

Fondation Christophe et Rodolphe Mérieux awarded Professor François Nosten (for a sum of €400,000), the head of the "Shoklo Malaria Research Unit" in Thailand. This prize is a reward for the exceptional research on malaria in pregnant women and their children, a major healthcare issue, which has been neglected to date.

→ 9 SCIENTIFIC GRANTS AWARDED

As part of this applied research grant program in developing countries, 9 scientific grants were awarded to junior researchers in 2008. The projects selected are essentially related to HIV (antiretroviral treatment observance), malaria (progression and identification of mutations involved in antimalarial drug resistance, tuberculosis (molecular epidemiology in Albania) and rabies (antiviral treatment).

LAUNCH → OF THE GABRIEL NETWORK



The Foundation's aim is to structure international cooperation in the field of research on infectious diseases.

In this way, in 2008, it initiated the GABRIEL (Global Approach for Biological Research on Infectious Epidemics in Low-income countries) laboratory network which has three aims:

- **Transfer the expertise and knowledge** required for advanced applied research in emerging countries, particularly with respect to pathogenic agent identification and follow-up, and train researchers and technicians in the field
- **Conduct international multi-center epidemiological studies** and, to this end, evaluate existing diagnostic tools in conjunction with *in vitro* diagnostic companies and local healthcare players
- In this way, **help optimize and guide public healthcare policies** using reliable and accurate epidemiological data

This network is intended to initiate multidisciplinary projects in the field of respiratory infections and, more broadly, specific diseases in developing countries. It also conducts pragmatic and concrete actions providing researchers in developing countries with the tools required to complete their own research projects: laboratory procedures, specific software, databases and biological samples, mentoring training programs, etc.

Based around the Foundation's two applied research units in Lyon and Beijing, the GABRIEL laboratory network brings together Rodolphe Mérieux Laboratories, local reference laboratories, representatives of academic or private sector research (Inserm, international Institut Pasteur network, etc.), the hospital sector (HCL, Health Service of the French Army, etc.) and universities (Columbia University, etc.). This network is also open to diagnostic firms (Affymetrix, bioMérieux, Hain, FastTrack Diagnostics, etc.).

The GABRIEL network is also structured around an Internet exchange and training platform, GLOBE.



PATIENT SUPPORT

In addition to its programs in the field of biology, research and training, Fondation Mérieux contributes to patients support, particularly women and children affected by infectious diseases.

➔ MICROCREDITS FOR WOMEN LIVING WITH HIV

After 4 years of microcredit program in Haiti, in conjunction with GHESKIO (care center for persons living with HIV/AIDS) and ACME (Association pour la Coopération avec la Micro-Entreprise), Fondation Mérieux reported very positive results from this action in 2008. This model has been the subject of a publication.

Set up in 2005, this pilot microcredit program intended to assist women living with AIDS followed up at GHESKIO, under antiretroviral treatment or not, was very quickly extended to vulnerable women attending GHESKIO for screening tests, irrespective of the result.

In 2006, a survey was conducted on 66 women, who were among the first to benefit from microcredit, and 30 control women followed up at GHESKIO but who did not receive microcredit. This study showed significant differences in the living conditions between the two groups. With higher income, almost twice as many of the women who had benefited from a loan were able to feed themselves correctly, buy new clothing, pay for public transport and contribute to their children's school costs.



Three years later, 1061 women have benefited from 1538 loans totaling approximately €216,000. In spite of a low level of education and very difficult economic conditions, the loan repayment rate is extremely good, at around 94% in mid-2008.

When combined with antiretroviral treatment, micro-finance is without doubt a major instrument in reducing the impact of HIV infection on affected populations in countries with limited resources. The Haitian program demonstrates the feasibility of micro-loans in a difficult environment, if the program is assigned to competent professional organizations.

On the back of these results, the Foundation intends to extend the micro-loan program to patients living with HIV in other disadvantaged countries, particularly in Mali.



➔ SUPPORT TO LOCAL NGOS

— **Fondation Mérieux supported a range of initiatives in the field in 2008.**

■ **In Mali**, the Rodolphe Mérieux Laboratory increased its cooperation with the Bamako Social Emergency Services, to which it provides biological tests for street children. Furthermore, the Foundation's laboratory also provides the poor with biological tests, to enable them to access quality healthcare.

■ **In Madagascar**, the Foundation conducted support actions for various bush facilities through equipment donations and training. In the pediatric department in Antsirabe Hospital, it also covered the cost of healthcare for deprived children.

■ **In Ethiopia**, the Foundation supports InterAide in its support project for rural populations in the Southern region making available access to tuberculosis diagnosis and treatment. Owing to the work of this NGO, 93% of patients are now diagnosed in the first 3 months of the disease as opposed to 68% in 2006.

■ **In Cambodia**, as part of a partnership agreement between Fondation Mérieux and the association "1001 Fontaines pour demain", a water quality control system was set up in Cambodia.

The aim of the association "1001 fontaines pour demain" is to give populations access to healthy drinking water. "1001 Fontaines pour demain" has tested a new approach for small isolated rural communities, developing a purification process, including a completely autonomous treatment plant (known as a "UV+Solar plant"), intended, using surface water, to enable these small rural communities to produce the drinking water they need themselves. This approach results in the supply of purified water to those in need at the lowest possible price, enabling farmers and their families to obtain a reasonable income and fund the upkeep of their installations.

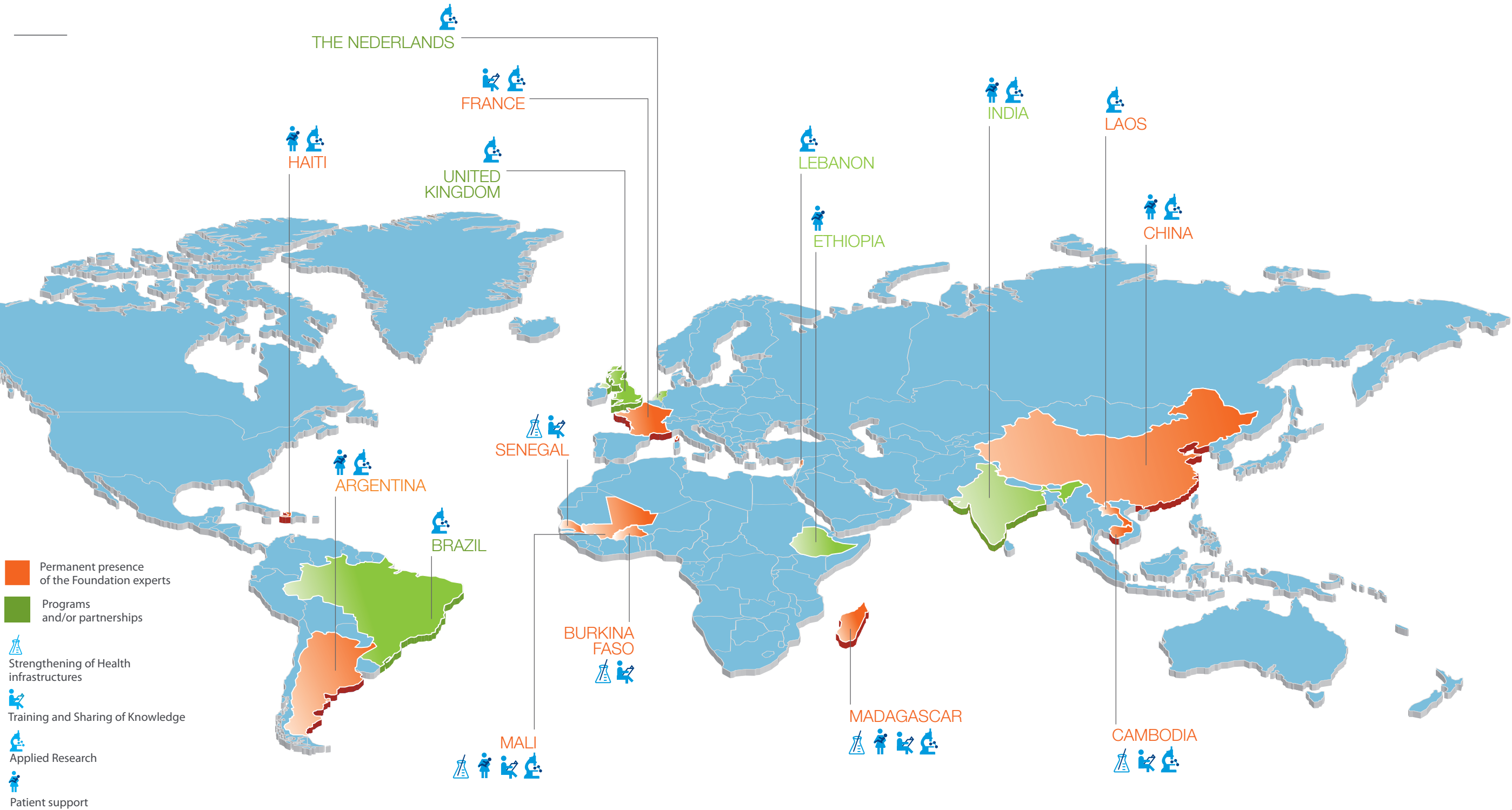
After initial projects in three villages in North-West Cambodia in 2005, the association has rolled out similar projects in eight new villages for a population of more than 10,000 people.

■ **Special contributions:** A range of NGOs received support for the actions in the field in 2008, in the form of specific grants. For example: Sol en Si for the care of AIDS children in Togo, Medicap for the treatment of infectious diseases in prisons in Madagascar, Assistance aux Enfants Abandonnés et Orphelins (AEO, CNA) for assistance to girls and women who have suffered sexual assaults in Democratic Republic of Congo, Dark and Light Blind Care Foundation for the prevention and care of trachoma in Ethiopia.





INTERNATIONAL PRESENCE





GOVERNANCE

→ BOARDS OF DIRECTORS*

—Representatives of the Founding Members:

- Monsieur Alain MÉRIEUX - *Président*
- Madame Claudine FRIEH
- Madame Karine MEHLER
- Madame Sophie MÉRIEUX
- Monsieur Alexandre MÉRIEUX

—Qualified persons:

- Monsieur Michel BAGUENAUULT*
- Professeur Christian BRÉCHOT
- Monsieur Didier CHERPITEL
- Professeur François GROS
- Monsieur Dominique PELLA
- Professeur Dominique PEYRAMOND
- Docteur Robert SEBBAG

—Government representative:

- Monsieur LE PRÉFET DU RHÔNE

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- Monsieur Benoît MIRIBEL - *Director general*
- Monsieur Paul CAROLY - *General Secretary*
- Docteur Christophe LONGUET - *Médical Director*
- Monsieur Guy VERNET - *Scientific Director*

→ SCIENTIFIC COMMITTEE

- Professeur Albert OSTERHAUS
Erasmus University Rotterdam, the Netherlands
- Professeur Steward COLE
École Polytechnique Fédérale de Lausanne, Switzerland
- Professeur Ogobara DOUMBO
Malaria Research and Training Center, Bamako, Mali
- Professeur Pierre-Marie GIRARD
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Imperial College – UK*
- Docteur Kai Man KAM
*Tuberculosis reference laboratory,
Department of Health, Hong Kong, China*
- Professeur Arnold S. MONTO
University of Michigan, U.S.A.
- Professeur Johan NEYTS
Faculté de Médecine de l'Université de Louvain, Belgium
- Professeur Fabien ZOULIM
INSERM - Lyon (France)

MAIN PARTNERS

- AVENTIS PASTEUR MSD
- BERNAL
- THE BILL AND MELINDA GATES FOUNDATION
- BIOMÉRIEUX
- CHILDREN'S VACCINE PROGRAM AT PATH
- CHIRON
- EUROPEAN COMMISSION
- EVM (EUROPEAN VACCINES MANUFACTURERS)
- FONDATION CHRISTOPHE ET RODOLPHE MÉRIEUX
- GLAXOSMITHKLINE (GSK)
- MERCK
- NATIONAL FOUNDATION FOR INFECTIOUS DISEASES
- SANOFI PASTEUR
- WYETH LEDERLÉ VACCINES

*Until 31 December 2008





2008

ACCOUNTS AND KEY FIGURES

→ BALANCE SHEET

ACTIF €€'000	Net Dec. 31, 2008	Net Dec. 31, 2007
FIXED ASSETS		
Intangible fixed assets	2	3
Property, plant and equipment	5,631	6,316
Investments and other financial assets	19,917	11,592
Total	25,550	17,912
CURRENT ASSETS		
Inventories	2	1
Accounts receivable	789	889
Other receivables	2,129	2,815
Short and long term investments	78,357	82,271
Cash and cash equivalents	477	5 971
Deferred charges	264	187
Total	82,017	92,134
TOTAL ASSETS	107,567	110,046
CAPITAL & LIABILITIES €€'000		
FOUNDATION CAPITAL		
Capital	64,700	64,700
Reserves	884	884
Retained earnings	37,429	(271)
Annual result	(7,287)	37,700
Total	95,726	103,013
Provisions for contingencies	241	241
Appropriations for Fondation activities	2,149	2,313
LIABILITIES		
Financial debts	3,244	2,065
Accounts payable	1,099	728
Financial commitments	4,175	0
Other debts	613	635
Deferred income	320	1,050
Total	9,451	4,478
TOTAL CAPITAL & LIABILITIES	107,567	110,046

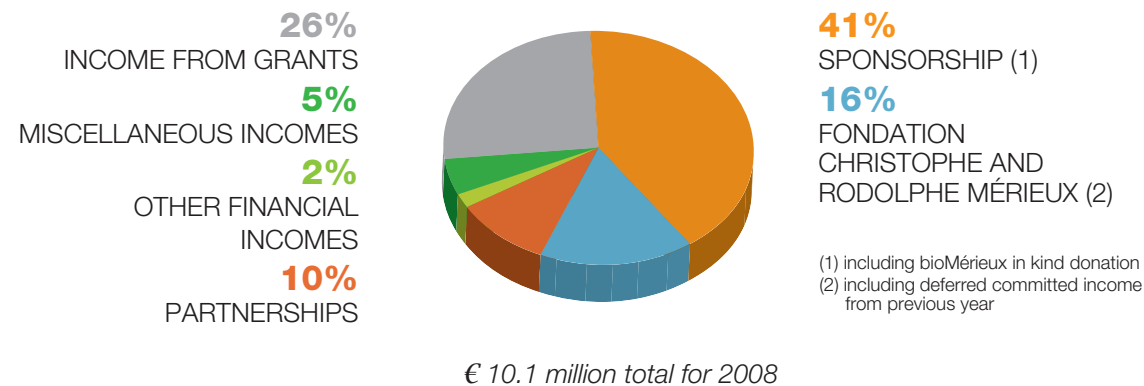
→ STATEMENT OF INCOMES AND EXPENSES

€€'000	2008	2007
INCOMES		
Services	169	168
Donations	207	215
Operating grants	4,559	6,077
Other operating incomes	517	480
Other financial incomes	1,274	204
Exceptional income from assets reallocation	0	41,656
Total incomes	6,726	48,800
EXPENSES		
Operating expenses	2,787	3,297
Taxes	259	268
Personnel expenses	1,824	1,396
Depreciation, amortization and provisions	816	822
Grants and Fellowships	3,635	2,427
Financial expenses	4,855	392
Net value of reallocated assets	2	766
Total expenses	14,177	9,375
INTERMEDIATE BALANCE	-7,451	39,425
Deferred committed income from previous years	2,313	469
Deferred committed income	2,149	2,192
PROFIT OR LOSS	-7,287	37,700

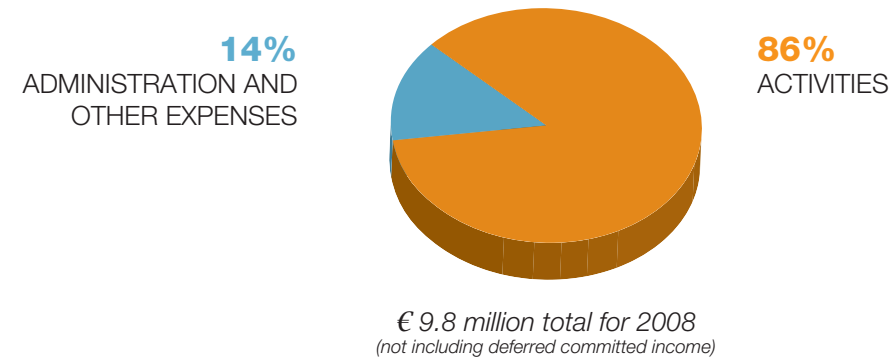




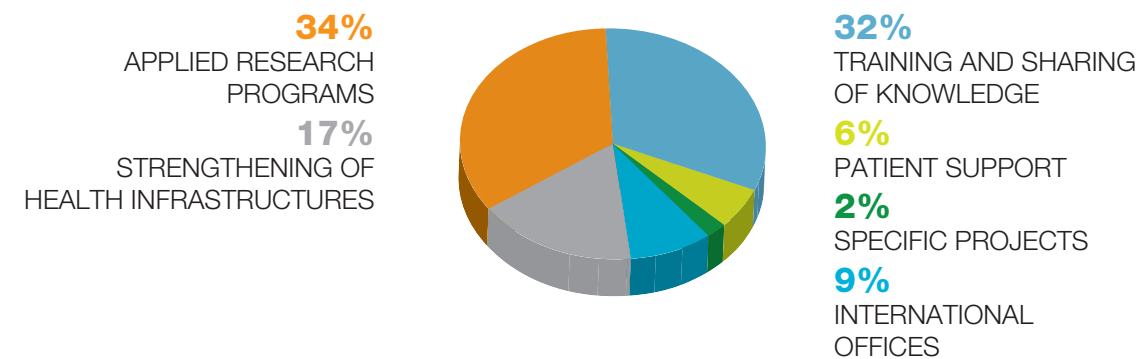
➔ BREAKDOWN OF 2008 INCOMES (not including provisions and exceptional incomes)



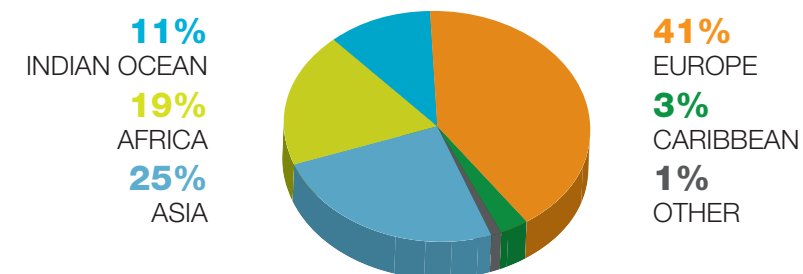
➔ BREAKDOWN OF 2008 EXPENSES (not including provisions and exceptional expenses)



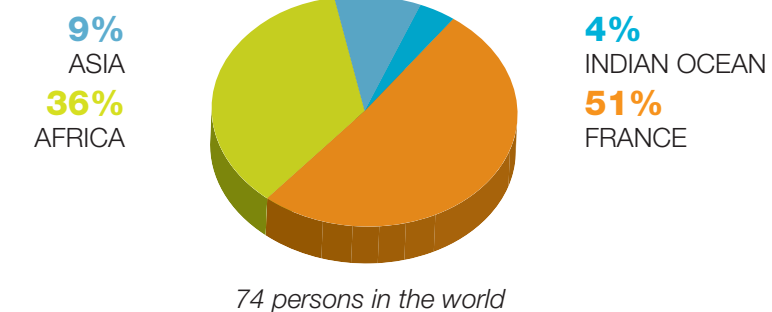
➔ BREAKDOWN OF EXPENSES BY ACTIVITY



➔ ACTIVITIES GEOGRAPHICAL SEGMENTATION (As of December 31, 2008)



➔ STAFF GEOGRAPHICAL SEGMENTATION (As of December 31, 2008)



➔ EVOLUTIONS IN EXPENSES BY STRATEGIC FIELD OF ACTIVITIES (€'000)

