

2011

ANNUAL REPORT



ROOTS FOR LIFE





The background of the page features a blurred image of a microscope lens on the left side. Overlaid on this is a network diagram consisting of white dots of varying sizes connected by thin white lines, forming a complex web-like structure. The main title 'FONDATION MÉRIEUX' is centered in a large, white, sans-serif font, with 'FONDATION' on the top line and 'MÉRIEUX' on the bottom line.

FONDATION MÉRIEUX

Created in Lyon in 1967
and registered as a charity in 1976

**Dedicated to fighting
infectious diseases
in developing countries**

Three strategies:

- Strengthening local clinical biology and applied research capacities to improve identification of infectious diseases
- Increasing vulnerable populations' access to high-quality biological diagnosis to ensure appropriate treatment
- Encouraging, through Les Pensières Conference Centre, interaction and exchange between participants in public health to contribute to sharing and developing knowledge of infectious diseases and fostering innovative projects

100 employees working in more than ten countries in the world

Coordination of an international network of 13 training and research laboratories

Integrated research teams bringing together around 15 expert researchers in the Emerging Pathogens Laboratory (Lyon, France) and in the Christophe Mérieux Laboratory (Beijing, China)

An annual budget of approximately €15 million dedicated to initiatives in the field

A family foundation based in Lyon (France) with a presence in the USA, China and a dozen developing countries

**Close cooperation with
Fondation Christophe
et Rodolphe Mérieux, under
the auspices of the Institut
de France**



2011

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ALAIN MÉRIEUX
President

Acting in perfect harmony, Fondation Mérieux and Fondation Christophe et Rodolphe Mérieux combine forces to combat infectious diseases in developing countries. Together they have developed an innovative model based on a particular specialist area that is crucial to public health and medicine: clinical diagnostics.

Our ambition is to make biological diagnostics, compliant with the highest international quality standard available in developing countries, thus opening the door to an essential element of access to healthcare for underprivileged populations.



Through our foundations, we wish to be present in regions where infectious diseases are rife, to provide practical and sustainable solutions devised in partnership with all those involved in healthcare in these countries. In this way, we have in recent years made progress in West Africa, the Caribbean, Asia and the Middle East. We have created the Rodolphe Mérieux Laboratories, clinical biology laboratories of excellence, around which we have put in place or strengthened medical analysis structures in isolated regions. We have also established a network of biology laboratories. With the help of our colleagues in higher education, we have trained many men and women to enable them to become healthcare decision-makers in their own countries.

This initiative is illustrated by the RESAOLAB project in West Africa, initiated in 2009, which is going from strength to strength. The project was made possible by co-funding from the Agence Française de Développement. It aims to combat the main pandemic diseases, such as AIDS, tuberculosis and malaria, in Burkina Faso, Mali and Senegal by reinforcing their clinical biology capabilities. Three years after its launch, we are proud of the progress

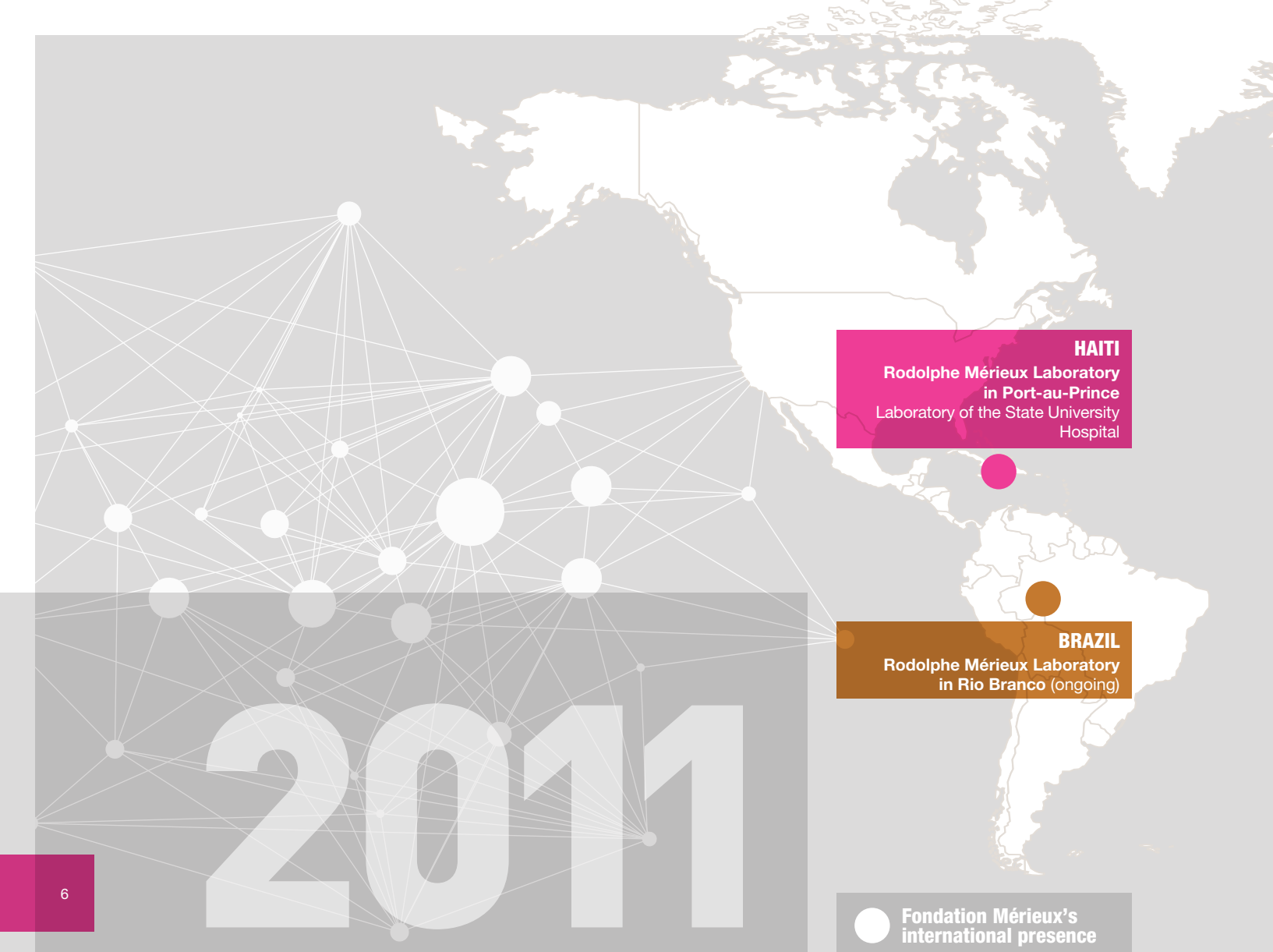
made so far, particularly in the deployment of important training programmes, laboratory equipment, epidemiology monitoring programmes and the creation of a highly active network that can be extended to other African countries.

Our aim is to enable the countries in which we are involved to become independent in terms of meeting their own public health needs. This is why, within the context of long-term assistance, we have chosen to transfer ownership of the infrastructures that we create. We are committed to taking a long-term view, and the recent upheavals encountered by a number of countries have confirmed that this is indeed the right approach. **Come what may, Fondation Mérieux's dedication will endure both in good times and in bad, and we will continue to stand shoulder to shoulder with our partners - as we do today in Mali - to provide them with all the support that we can.**

Step by step, we are making progress. We face huge challenges in order to respond to the considerable needs of developing countries in so many fields, including infectiology, environmental safety, access to safe water, nutrition

and education. On a small scale, but with great determination, we carry out our work in the field. **Compared with the scale of the task, our resources are of course limited. As with Sanofi Pasteur since the beginning, we are actively seeking to establish new scientific and financial partnerships with international organizations, research centres, other foundations and the industrial sector with a view to augmenting our resources and increasing the effectiveness of our activities.** We have very recently established a Fondation Mérieux base in the USA, with the specific aim of seeking new partnerships.

In order to respond to the critical needs of men, women and children living in precarious conditions and facing the ever-present threat of infection, it is essential that we initiate and pursue new forms of cooperation that transcend geographical, scientific and cultural boundaries.



TAKING OWNERSHIP OF LOCAL RESOURCES



BENOÎT MIRIBEL
Director General

Promoting the adoption of scientific and medical resources in developing countries is a cornerstone of Fondation Mérieux's mission.

Bolstered by the accomplishments made in recent years, 2011 marks a watershed in the adoption of scientific and medical resources made available in a dozen developing countries.

The Charles Mérieux Centre in Bamako, which for a number of years had been under the joint direction of its founder Youssouf Issabré and Fondation Mérieux's headquarters, is now under joint governance with Mali's Ministry of Health.

Chaired by Prof. Ogobara Doumbo, this infectiology centre now contains state-of-the-art equipment and is staffed by a



FRANCE
Emerging Pathogens Laboratory
in Lyon
Jean Mérieux BSL-4 Laboratory
in Lyon

LEBANON
Rodolphe Mérieux Laboratory
in Beirut

MALI
Rodolphe Mérieux Laboratory
in Bamako
RESAOLAB Laboratories

SENEGAL
RESAOLAB Laboratories

BURKINA FASO
RESAOLAB Laboratories

MADAGASCAR
Rodolphe Mérieux Laboratory
in Antananarivo
Fianarantsoa Hospital's laboratory
Fort-Dauphin Hospital's laboratory
Antsirabe Hospital's laboratory

TAJIKISTAN
Rodolphe Mérieux Laboratory in Dushanbe
(ongoing)

BANGLADESH
Rodolphe Mérieux Laboratory in Chittagong
(ongoing)

CHINA
Rodolphe Mérieux Laboratory in Beijing

MYANMAR
Public Health Laboratory of Mandalay

LAOS
Rodolphe Mérieux Laboratory in Vientiane
Thakhek Hospital's laboratory
Mahosot Hospital's laboratory

CAMBODIA
Rodolphe Mérieux Laboratory in Phnom Penh
Battambang's laboratory
Khmer-Soviet Friendship Hospital's laboratory
Kossamak Hospital's laboratory
Svay Rieng's laboratory (ongoing)
Takeo Regional Hospital's laboratory

solid team led by Prof. Souleymane Diallo. Equipped with the means for detecting and identifying infectious agents, the Rodolphe Mérieux Laboratory in Bamako trains public health pathologists in Mali and the surrounding region throughout the year.

Two new Rodolphe Mérieux Laboratories were inaugurated in Madagascar and Lebanon in 2011. The first was inaugurated in April at the Charles Mérieux Centre on the campus of the University of Antananarivo, and the other was inaugurated in May at the Saint Joseph University in Beirut.

Both new laboratories add to the expertise of the GABRIEL⁽¹⁾ laboratory network dedicated to multicentre research in our two main areas of focus – respiratory infections and multi-resistant tuberculosis.

With two new Rodolphe Mérieux Laboratories being built in Tajikistan and Bangladesh, learning how to use these unique facilities is a key. Choosing local partners known for their strong commitment in the fight against infectious diseases is a guarantee of a successful outcome. The example of Prof. Jean-William Pape in Haiti shows that, in addition to fighting infectious

diseases, making a contribution to improving the health of vulnerable populations is what drives us.

Just like two years ago at the Christophe Mérieux Centre in Vientiane, Laos, molecular biology equipment has been added to the Public Health Laboratory of Mandalay in Myanmar, making it possible to determine the viral load of thousands of HIV-infected patients.

By equipping hospital laboratories – as it did in Cambodia, Laos and Madagascar in 2011 – the Foundation is doing its part to promote the access of populations in developing countries to quality clinical pathology. Such access is vital for our own public health considering the growing problem of antibiotic resistance in the world.

Just like the conferences and courses held at Les Pensières Conference Centre in Annecy, France, on epidemiology, diagnostic testing and vaccinology, each Mérieux Centre around the world plays host to more and more training courses and conferences meeting one of the Foundation's priorities: passing on knowledge on infectious diseases.

Flanked by large international scientific teams and pathologists working in the

field, Fondation Mérieux works to strengthen local resources by promoting the sharing of information and the development of new projects.

As with Institut Bioforce Développement and Agence de Médecine Préventive (AMP), which were initially funded by Fondation Mérieux, our partners will have gained the necessary autonomy to make the GABRIEL and RESAOLAB⁽²⁾ networks their own and sustain them.

Driven by the importance of increasing our impact in the fight against infectious diseases, Fondation Mérieux's teams applied throughout 2011 the methods that will help our partners to take ownership of projects in order to ensure that our joint actions are sustained.

(1) Global Approach for Biological Research on Infectious Epidemics in Low income countries

(2) West Africa laboratories network



AN INNOVATIVE MODEL TO SERVE PUBLIC HEALTH

Fondation Mérieux is an independent family foundation, created in 1967. It became a registered charity in 1976 and seeks to fight infectious diseases in developing countries.

Today, it is present in a dozen countries and offers an innovative model based on its long-standing expertise in clinical biology and a global approach in response to public health problems.

Its mission is to contribute to global health by strengthening local capabilities in developing countries to reduce the impact of infectious diseases on vulnerable populations.



Biological diagnostics is an essential element in individual and collective healthcare. Through relevant and reliable results, biological diagnostics make it possible to identify pathogens, to prescribe an appropriate treatment for each patient, and to follow up the treatment. On a wider scale, it is an essential tool for epidemiological monitoring and the implementation of public health policies and appropriate prevention initiatives.

However, developing countries very often lack medical analysis facilities, efficient diagnostic tools and qualified staff. Better access to high-quality diagnostics is therefore one of Fondation Mérieux's priorities.

To achieve this, Fondation Mérieux works very closely with Fondation Christophe et Rodolphe Mérieux, an independent family foundation under the auspices of the Institut de France, for which it acts as the operational arm in the field.

Today, Fondation Mérieux dedicates a budget of approximately €15 million to programmes that combat infectious diseases.

To achieve its public health objectives, the foundation seeks to create international networks and develop active partnerships spanning all relevant disciplines. It works closely with the developing countries' health authorities, public and private academic research bodies, international organizations, development banks, foundations, NGOs and the healthcare industry.

THREE STRATEGIC PRIORITIES

REINFORCEMENT OF CLINICAL BIOLOGY CAPABILITIES AND APPLIED RESEARCH

Fondation Mérieux possesses unique expertise that is recognized worldwide in the creation and renovation of clinical biology units dedicated to infectious disease diagnostics.

In partnership with local healthcare professionals, it creates the Rodolphe Mérieux Laboratories, laboratories of clinical excellence with a two-fold objective: applied research in infectiology and training.

To ensure the smooth running of these facilities in the long term, the foundation shares its expertise in applied research, training and maintenance. It integrates these laboratories into an international scientific network, GABRIEL (*Global Approach for Biological Research on Infectious Epidemics in Low-income*

countries), bringing together the foundation's teams in Lyon and Beijing, its various scientific partners and other onsite laboratories. The objective of this network is to foster mutual assistance and the sharing of skills and information, in order to facilitate the implementation of programmes focusing on applied research, epidemiological monitoring, prevention and treatment.

This multidisciplinary network approach is a common thread throughout all Fondation Mérieux activities and is a major factor in the long-term success of these projects.

VULNERABLE POPULATIONS' ACCESS TO HIGH-QUALITY BIOLOGICAL DIAGNOSIS

Around the Rodolphe Mérieux Laboratories, Fondation Mérieux creates or renovates medical analysis laboratories within regional hospitals and health organizations, to give local populations access to high-quality diagnostics and thus improve the level of treatment.

At the same time, the foundation develops targeted training courses for health professionals and contributes to improve diagnosis capabilities through the deployment of new information and communication technologies.

Today, Fondation Mérieux is present in Cambodia, China, Haiti, Laos, Madagascar, Mali, Lebanon and Tajikistan. Every year, it extends its network to include more countries in Africa, Asia, the Caribbean and the Indian Ocean region.

INTERNATIONAL SHARING AND DEVELOPMENT OF SCIENTIFIC EXPERTISE: LES PENSIÈRES

Les Pensières Conference Centre is a venue for meetings and exchanges between North and South, and is dedicated to scientific dialogue and expanding scientific innovation. For more than 40 years, it has welcomed healthcare professionals (researchers, clinicians, biologists, pharmacists, veterinarians, representatives of healthcare and regulatory authorities, etc.) without any limitations in terms of disciplines or countries, attending conferences dealing with healthcare issues and high-level institutional training courses.

Les Pensières was created with an initial focus on vaccinology, but now extends

its activities to diagnostics and other issues with an impact on public health, such as nutrition, food safety and access to safe water...

It contributes to the foundation's international sharing of scientific expertise and consequently, to the strengthening of knowledge in the fight against infectious diseases.

It is at the origin of an outstanding multidisciplinary network of specialists that is ready to take action to further the interests of public health on a global scale.



TRAINING PROGRAMMES FOR THE FUTURE

Biology facilities in developing countries can only be strengthened effectively if appropriate training is put in place for local healthcare professionals, including not only laboratory technicians but also the next generation of scientific and medical experts. The foundation has developed its expertise in this regard, through its collaboration with various technical and academic training organizations, as with the ESTBB (School of Biology, Biochemistry and Biotechnology at the Catholic University in Lyon). It has thus implemented a number of training and knowledge-sharing programmes intended to reinforce onsite biological expertise and to raise awareness among opinion leaders regarding major public health issues (including vaccinology, diagnostics,

new pathogens and neglected diseases). It also contributes to organizing high-quality university teaching in subjects such as pharmacy and medicine. The Universities of Health Sciences in Phnom Penh, Cambodia, and Antananarivo, Madagascar, attest to the foundation's commitment in this regard.

Although Fondation Mérieux makes use of Les Pensières Conference Centre for numerous events and international training programmes, it favors the implementation of onsite training, so that trainees strengthen their ties to their native countries and can become the next generation of public health decision-makers.

A POTENTIAL OF APPLIED RESEARCH



The network of laboratories set up throughout the world by the foundation is supported by dedicated applied research units in France and China.

This integrated research potential is a key asset to the foundation's activities, and forms the basis of its expertise and credibility.

Today, Fondation Mérieux is structured around two units:

- the Emerging Pathogens Laboratory in Gerland, Lyon (France);
- the Christophe Mérieux Laboratory in Beijing (China), co-managed with the Chinese Academy of Medical Sciences.

Researchers benefit from preferential access to the BSL-4 Jean Mérieux Laboratory, a high-security unit that is entirely dedicated to research into emerging pathogens.

The foundation's teams work on the evaluation, validation and development of diagnostic tools intended for the monitoring of infectious diseases in the national research and training laboratories. In collaboration with their partners, Fondation Mérieux's teams also aim to establish reliable epidemiological databases that can be used to help in the implementation of appropriate public health policies. Their research programmes also involve the identification and characterization of new pathogens.

In 2011, Fondation Mérieux's research teams submitted 14 articles that were published in scientific journals.

AT THE HEART OF AN INTERNATIONAL SCIENTIFIC NETWORK

In order to reinforce research capabilities in developing countries, Fondation Mérieux has created GABRIEL (*Global Approach for Biological Research on Infectious Epidemics in Low income countries*), a collaborative international scientific network led by the foundation's laboratories in Lyon and Beijing. GABRIEL is open to parties from all countries: Rodolphe Mérieux Laboratories, local laboratories of excellence, academic research centers, hospitals, members of the diagnostics industry, etc. Partnerships have also been established with the Institut Pasteur, INSERM (the French national institute of health and medical research) and World Health Organization (WHO).

The launch of GABRIEL has been far-reaching and the programme currently has 14 international partners from Haiti, Mali, Cameroon, Brazil, Paraguay, Madagascar, Laos, Cambodia, China, Singapore, Lebanon, Luxembourg

and France. The most recent addition to the GABRIEL Network was Georgia in 2011.

GABRIEL's objective is to strengthen and harmonize research capabilities in developing countries with regard to the detection and identification of pathogens.

The network oversees the running of epidemiological studies into diseases that have a significant impact in terms of public health.

GABRIEL also seeks to reinforce quality assurance processes and harmonize research methods.

To this end, the GABRIEL Network organizes opportunities for knowledge-sharing, the transfer of skills and expertise, and the deployment of tools and methodologies, as well as numerous training activities. GABRIEL has also set up a website enabling its members to share information, technical procedures and databases.

PRIORITY ISSUES

With the teams in Lyon and Beijing, and in collaboration with the GABRIEL Network partners, Fondation Mérieux run collaborative research programmes focused on two priorities:

- **respiratory infections**
- **multi-resistant tuberculosis**

Alongside these programmes, it works on other particularly important infectious diseases and, in certain regions, is implementing local initiatives on specific issues: diarrheal diseases, typhoid fever, malaria, fevers of unknown origin, neglected tropical diseases and HIV.

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RESPIRATORY INFECTIONS

Pneumonia is currently the main cause of death in children under five. Every minute, four children are lost to this disease.

In 2011, Fondation Mérieux sought to develop and validate new diagnostic techniques aimed, in particular, at respiratory diseases:

■ **Molecular typing of pneumococci** to ensure that the various serotypes in the developing countries are monitored. This real-time multiplex PCR technique to identify the 40 principal *Streptococcus pneumoniae* serotypes has been validated on French, Brazilian and South African cohorts, and has recently been made available to the nine GABRIEL Network laboratories involved in this multicentre study on pneumonia.

This technique's multi-detection format is currently under further development to enable the identification of an even greater number of targets.

■ **A PCR technique enabling the real-time simultaneous identification of 21 viruses and five bacteria causing respiratory diseases.** Developed by the Emerging Pathogens Laboratory in collaboration with Fast Track Diagnostics based in Luxembourg, this technique has been short-listed for the PERCH programme coordinated by Johns Hopkins University in Baltimore (USA). In parallel, a technique that is more sensitive than the standard hemoculture method has

been implemented to detect bacteria in the blood of patients suffering from lower respiratory tract infections.

All of these techniques have been made available to the GABRIEL Network laboratories involved in the multicentric pilot study into pneumonia.

■ **A method for typing influenza** perfected thanks to DNA chip technology developed by the Affymetrix, makes it possible to identify, using a single test, the type and sub-type of an *influenza* virus, and to detect antiviral-resistant mutations, as well as the mutation's virulence and the extent of its adaptation to humans. In 2011, this test was made available to the Christophe Mérieux Laboratory in Beijing to study the circulation of *influenza* viruses.

The results obtained using this chip have revealed very accurate detection of the strains of various flu sub-types.



Various epidemiological studies have been undertaken on respiratory infections, including:

■ **A multicentric pilot study involving ten countries:** Mongolia, China, Cambodia, Haiti, Brazil, Paraguay, Mali, Madagascar, Lebanon and, since 2011, India, through a partnership with Sanofi Pasteur. This study, implemented by the Emerging Pathogens Laboratory, concerns children under five who are hospitalized for an acute lower respiratory infection. It aims to identify the viral and bacterial pathogens that cause pneumonia. In each location, a hospital and research laboratory have joined forces to make use of the different diagnostic tools developed by Fondation Mérieux's teams. In 2011, the ethics committees of each country involved gave their approval and the first patients were recruited. The study was launched in 2010 and should come to a close in 2013.

■ **A large-scale, long-term research project into the etiology and epidemiology of viral respiratory infections in China.** Led by the Christophe Mérieux Laboratory in collaboration with the PUMC Hospital, Chao-Yang Hospital and Beijing Children's Hospital, this study concerns all the common viral respiratory diseases. It not only provides baseline data on the prevalence of respiratory viruses in China, but also offers all the GABRIEL Network laboratories valuable information on emerging or re-emerging pathogens at the origin of epidemics.

Aside from the monitoring of common respiratory viruses, the Christophe Mérieux Laboratory has also studied respiratory viruses that have emerged recently in China, such as the WU and KI polyomaviruses, the type 3 human bocavirus and the saffold cardiovirus. The laboratory team was thus the first to identify the WU polyomavirus in stool samples from children showing symptoms of gastroenteritis. It was also first to identify the first strain of the saffold cardiovirus in stool samples in China, and to identify and characterize three different strains of this virus in clinical respiratory samples.

Finally, the work of the foundation's applied research laboratories has made it possible to identify and characterize new markers for emerging or unknown viruses, as well as analyze the role of these new viruses in the pathogenesis of respiratory infections.

Thus, thanks to ultra-sensitive molecular biology technology perfected by the foundation's teams, several new strains of the *Torque Teno MiniVirus* (TTMV) have been identified in the pleural fluids of children hospitalized following pleuropneumopathy. In 2011, the Emerging Pathogens Laboratory implemented an *in vitro* culture system enabling these viruses to replicate, proving that these new pathogens are indeed able to replicate and re-infect healthy pulmonary cells.

PRIORITY ISSUES

TUBERCULOSIS

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Tuberculosis causes 1.7 million deaths per year and currently affects more than a third of the world's population.

As a result of diagnostic difficulties and the development of multi-resistant forms, only 60% of cases are identified, making this disease a major public health issue.

It is a priority for Fondation Mérieux's applied research teams.

Implementation of molecular diagnosis resistance tests within the GABRIEL Network

In order to provide the Rodolphe Mérieux Laboratories with the means to carry out epidemiological studies into resistance to anti-tuberculosis medications, the diagnostic test for resistance to antibiotics developed by Hain Lifescience was introduced in 2009 in Haiti, Laos, Mali and Madagascar. This test makes it possible to diagnose resistance to the two first-line treatments for tuberculosis: Rifampicin and Isoniazid.

In 2010, the laboratories in Laos and Haiti joined an external quality control programmes, followed by Mali in 2011. The evaluation sessions carried out in these three laboratories in 2011 were a success, and the primary objective of the programme could therefore be considered as achieved. The Rodolphe Mérieux Laboratories will remain involved in this initiative, in order to ensure the continued quality of its results.

Moving towards a versatile new diagnostic test

At present, medical analysis laboratories require several kinds of technology in order to be able to diagnose tuberculosis: liquid and solid cultures, rapid tests, PCR and electrophoresis. In 2011, the Emerging Pathogens Laboratory worked in partnership with Luminex to develop a unique technology that can identify the species of *M. Tuberculosis*, type the strain and determine its resistance to the four first-line treatments, all from a single sample.

Thus, the Rodolphe Mérieux Laboratories will be equipped with a molecular epidemiology tool to research the relationship between the genotype and a phenotypic characteristics of a tuberculosis strain (virulence, transmissibility and the ability to develop resistance). Understanding these relationships should provide indications as to treatments for patients, as well as information on the strains in circulation, which is essential for the implementation of prevention policies.



→ OTHER COLLABORATIVE PROJECTS IN INFECTIOLOGY

TYPHOID FEVER:

At the request of the Bill and Melinda Gates Foundation, Fondation Mérieux will be developing a sensitive diagnostic test to detect *S.typhi*, *S.paratyphi A*, *S.typhimurium* and *S.enteritidis* directly in the blood. The project brings together five partners: the National Salmonella Center at Institut Pasteur in Paris, the West of Scotland Specialist Virology Centre in Glasgow (United Kingdom), Fast Track Diagnostics in Luxembourg, the KEMRI-CDC in Kenya, and the Child Health Foundation in Bangladesh.

HEMORRHAGIC FEVERS:

The Crimean-Congo hemorrhagic fever is the subject of several areas of research by the Emerging Pathogens Laboratory in France, in collaboration with the IRBA (French armed forces biomedical research institute) and the BSL-4 Jean Mérieux Laboratory.

NEGLECTED TROPICAL DISEASES:

Since 2008, five European foundations (Cariplo, Gulbenkian, Mérieux, Nuffield and Volkswagen) have been running an initiative aimed at strengthening the capabilities of African researchers working on neglected tropical diseases, through grants awarded for postdoctoral research.

In 2011, 20 grants were awarded a total amount of €2.9 million, including €200,000 provided by Fondation Mérieux.

Genome sequencing to improve knowledge of resistance mechanisms

The detection of resistance to anti-tuberculosis medications using molecular techniques is currently hindered by the lack of knowledge regarding the mutations involved in resistance mechanisms. Fondation Mérieux has initiated a project using high-speed sequencing, with the aim of supplementing current knowledge by comparison of genomes presenting resistance and those of sensitive strains. Throughout 2011, its efforts were dedicated to the search for partners and the implementation of the technical capabilities necessary to carry out this project: the ProfileXpert sequencing platform (genomics platform at the University of Lyon); the biological data analysis will be carried out in partnership with Genostar. The project includes Georgia, Haiti and China.

In parallel with these various projects, the Rodolphe Mérieux Laboratories are running several epidemiological studies into multi-resistant TB strains in Haiti, Mali, Madagascar and Laos.



DR HECTOR GARCIA, WINNER OF THE CHRISTOPHE MERIEUX PRIZE 2011

The Christophe Mérieux Prize 2011 was awarded to Doctor Hector Garcia, a Peruvian doctor, researcher and world-renowned specialist in parasitic infections.

This €500,000 prize is conferred by Institut de France on behalf of Fondation Christophe et Rodolphe Mérieux to support research into infectious diseases in developing countries and to reward teams working in the field.

Dr. Garcia was awarded this accolade in recognition of his major contribution to public health in Peru and, in particular, for his research on cysticercosis. This tropical disease is relatively unknown to the general public, but is the most common parasitic infection of the central nervous system in developing countries, affecting 50 million people in Latin America, Africa, India and Asia. In awarding this prize, Fondation Christophe et Rodolphe Mérieux wishes to help Dr. Garcia and the CWGP (Cysticercosis Working Group in Peru) with their project to create a research and care centre for parasitic diseases.

Founded in 1987 and led by Dr. Garcia since the early 1990s, the CWGP unit is renowned for its work on cysticercosis. It comprises approximately 100 people and pursues international collaborations on various topics and, in particular, on this erratic larval infection, in the hopes of eradicating it completely.



As the historical headquarters of Fondation Mérieux, Lyon is home to the events and management activities, the Emerging Pathogens Laboratory in Gerland and the BSL-4 Jean Mérieux Laboratory, owned by the foundation and managed by INSERM (the French national institute of health and medical research).

The Emerging Pathogens Laboratory coordinates the GABRIEL Network. It also works in partnership with the Christophe Mérieux Laboratory in Beijing (China) as well as with several research institutions and universities in France and abroad. The teams lead several projects on respiratory infections, multi-resistant tuberculosis and hemorrhagic fevers (*see the programmes on pages 12-15*).

500 GLOBE
MEMBERS,
THE ONLINE NETWORK
FOR BIOMEDICAL
EXPERTISE

EUROPE

In the Rhône-Alpes region, next to Lake Annecy, Les Pensières Conference Centre is a unique venue where Fondation Mérieux provides opportunities for scientists from all over the world to share and disseminate knowledge. This property of Dr. and Mrs. Charles Mérieux was brought by the family to the Foundation through a donation.

LES PENSIÈRES : A CATALYST FOR SCIENTIFIC INNOVATION

2011 was a particularly busy year for Les Pensières, which, true to its purpose of disseminating information and scientific innovation, organized numerous international meetings. The various institutional training courses, annual and one-off conferences on current scientific

issues brought together approximately 12,000 participants from more than 50 countries.

287 STUDY DAYS
ORGANIZED AT
LES PENSIÈRES
CONFERENCE
CENTRE

ALMOST
90 PUBLIC HEALTH
GROUPS ATTENDED



SECOND EDITION OF THE ADVANCED COURSE ON DIAGNOSTICS (ACDx)

“BETTER FOOD FOR BETTER HEALTH”: THE IMPORTANCE OF NUTRITION

“MOVING FORWARD”: PROGRESS IN DIAGNOSTIC TECHNOLOGIES

In September 2011, Fondation Mérieux organized the second edition of this training course. Run in collaboration with the London School of Hygiene and Tropical Medicine, it is aimed at scientists and decision-makers in the health sector. ACDx training course, which is supported by the Bill and Melinda Gates Foundation, aims to strengthen the role and quality of biological diagnostics in implementing of strategies for preventing, treating and controlling infectious diseases in developing countries. It therefore paints a picture of how biological diagnostic issues affect quality of treatment and presents the progress made in the area of diagnostic tests. Other areas covered include the issues of human resources management and quality assurance in laboratories.

Organized in September 2011 in partnership with Mérieux NutriSciences, this annual conference attracted over 100 international nutrition experts from the food industry, medical and academic communities and regulatory authorities.

Advanced-level presentations highlighted the close interplay between nutrition and health. They included reports on the new scientific possibilities created by metagenomic sequencing, which can now be carried out, and the repercussions for the medicine of tomorrow. Other topics covered by this conference included the challenges of food security, the devastation caused by malnutrition in the world, increasing levels of obesity and its implication in numerous diseases, and the development of “nutraceuticals”. These topics highlighted the central role that nutrition will continue to play in terms of health over the coming years.

After three years dedicated respectively to the specific diagnosis of infectious diseases (tuberculosis, malaria and HIV/AIDS), the 2011 edition of the annual conference “Moving forward in the diagnosis of infectious diseases in resource-limited countries” was dedicated to the technological aspects of diagnosis. The objective was to present the latest scientific and technological advances, to consider them with regard to the specific constraints and expectations of laboratories in the field, to identify the most suitable tools and to promote their introduction in developing countries.

Organized in partnership with the American Academy of Microbiology, this meeting brought together almost 100 experts on infectious diseases diagnosis. Clinicians, biologists, health-care managers from the most seriously affected countries, NGOs, industrialists, researchers, UN representatives and donors discussed topics that are crucial to improving quality of treatment in disadvantaged countries.



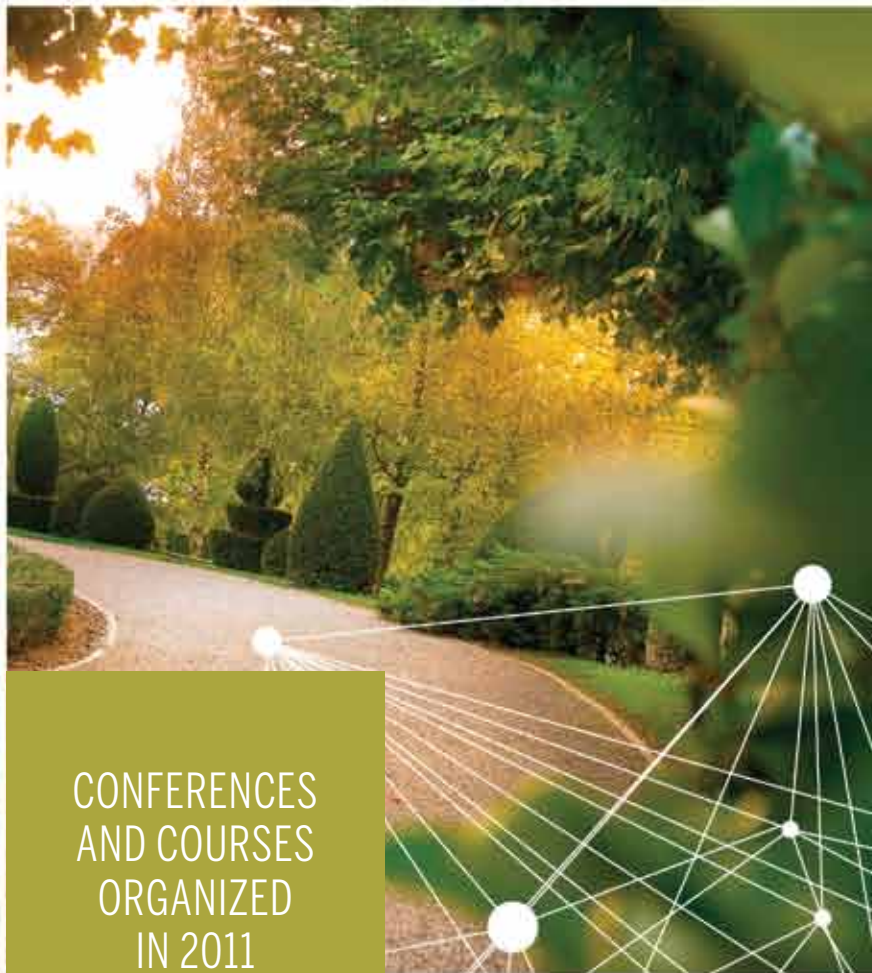
ADVANCED VACCINOLOGY COURSE (ADVAC): 12TH EDITION

In May 2011, 65 people attended the 12th edition of this institutional training course, organized in partnership with the University of Geneva. Several personalities and about 30 international experts contributed to this course, which was as well attended as ever, to facilitate decision-making in the area of vaccinology, by giving participants an overview extending from : immunology to vaccine development, as well as taking in clinical studies and covering social, economic, political and ethical issues relating to vaccination.

GLOBE : GLOBAL LINK FOR ONLINE BIOMEDICAL EXPERTISE

Designed for healthcare professionals and scientists in developing countries, this web portal aims to foster greater expertise and sharing of knowledge on infectious diseases.

Three years after its launch, GLOBE has 500 members and 33,000 visits from 188 countries.



CONFERENCES AND COURSES ORGANIZED IN 2011

During 2011, Fondation Mérieux organized a variety of international scientific meetings with its academic, scientific and biopharmaceutical partners.

MICROBIOLOGY	<ul style="list-style-type: none"> Infectious diseases emergence
IMMUNOLOGY	<ul style="list-style-type: none"> Animals models and relevance/predictivity Vaccination and antibody therapy nosocomial infections Global collaborative network
VACCINOLOGY	<ul style="list-style-type: none"> Advanced Vaccinology Course (ADVAC) French Vaccinology Course 4th Medical Day – Guinea Skin Vaccine Summit Societal responsibility and vaccinology
DIAGNOSTICS	<ul style="list-style-type: none"> Moving forward in the diagnosis of infectious diseases Advanced Course on Diagnostics: ACDx 4th edition of the Global Laboratory Initiative (Tuberculosis)
EPIDEMIOLOGY	<ul style="list-style-type: none"> Connecting Organizations for Regional Disease Surveillance
NUTRITION/ PUBLIC HEALTH	<ul style="list-style-type: none"> Better Food for Better Health - 2nd edition Entretiens Jacques Cartier

CAMBODIA
CHINA
LAOS
MYANMAR
TAJIKISTAN

[illegible]

Having had a presence in this region for over 10 years, Fondation Mérieux has carried out a great deal of activity in Cambodia and Laos. It is also extending its presence on the continent, having commenced work on building and renovating two new laboratories in Tajikistan and Myanmar in 2011.

ASIA

TAJIKISTAN

After several preparatory missions, work began on the construction site of a new Rodolphe Mérieux Laboratory in Dushanbe, Tajikistan, in September 2011. The future laboratory will be equipped with BSL-2 and BSL-3 units, with a surface of 425 m², and is to open in spring 2012. Financed by the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Rodolphe Mérieux Laboratory in Dushanbe will be the property of the Tajik Ministry of Health.

This unit should contribute to improving the diagnosis of tuberculosis, hepatitis, hemorrhagic fevers and respiratory infections.

Tajikistan is particularly affected by tuberculosis with many multi-resistant strains of the disease, which account for approximately 16% of new cases. Hemorrhagic fevers, such as that caused by the Crimean-Congo virus, are endemic. A recent poliomyelitis epidemic affected more than 1,000 people. On the whole, the country's healthcare system has suffered as a result of the dissolution of the Soviet bloc, civil war, and a lack of investment from the international community. Infrastructure and human resources, in laboratories, are woefully insufficient.

972 ANALYSIS
CARRIED OUT
AT THE THAKHEK
LABORATORY
(LAOS)

RENOVATION
OF 2 REGIONAL
HOSPITALS
IN CAMBODIA AND
MYANMAR

ORGANIZATION
OF THE
1ST "INFECTIOLOGY
& LABORATORIES
DAY" (LAOS)



MYANMAR

In September 2011, Fondation Mérieux began renovation work at the Public Health Laboratory (PHL) of Mandalay in Myanmar and implemented a technical molecular biology platform.

At the same time, a partnership for the implementation of HIV viral load quantification was launched between the International Union Against Tuberculosis and Lung Disease and the PHL to improve follow-up treatment for patients receiving antiretrovirals in northern Myanmar.

Myanmar is undergoing major changes and present huge needs in the field of healthcare. The coming back of the Global Fund to Fight AIDS, Tuberculosis and Malaria in 2010 is a positive outlook for improving health conditions for the populations most affected by these three diseases.

LAOS

BIOLOGICAL MONITORING OF PATIENTS LIVING WITH HIV

In 2011, the Christophe Mérieux Centre of Infectiology of Laos introduced viral load quantification as part of the follow-up treatment for patients living with HIV, in order to improve their care and quality of treatment.

By early October 2011, almost 1,800 patients, of whom 48% were women, had had their viral load measured at the Centre.

COPANFLU STUDY OF INFLUENZA A

This epidemiological study was launched following the appearance of H1N1 influenza in March 2009. Its objective is to reveal the incidence of influenza infection and to identify, for each individual, the epidemiological and virological determining factors for the risk of infection.

This work, jointly supervised by the Christophe Mérieux Centre, the EHESP (French School of Public Health) and Fondation Mérieux, was carried out between February 2009 and May 2012.

The project consists of following a cohort of more than 500 households, i.e. approximately 4,000 people in Vientiane to monitor epidemiological, serological and virological factors.

EPIDEMIOLOGY OF MULTI-RESISTANT TUBERCULOSIS STRAINS IN VIENTIANE

Since opening in 2009, the Christophe Mérieux Centre of Infectiology in Vientiane, Laos, a national organization under the Ministry of Health, has carried out various research projects into the diagnosis of tuberculosis and detection of resistance.

The Centre's role is to analyze resistance to anti-tuberculosis drugs by using molecular tests to identify strains other than *Mycobacterium tuberculosis*, as well as resistance to first-line anti-tuberculosis drugs. The results of this study, which was completed in early 2012, are in the process of being published.

As part of the agreement signed with the National Tuberculosis Control Programme Centre, the Christophe Mérieux Centre was a partner in the survey of national prevalence, which was extended in 2012. This aims to achieve a better assessment of the prevalence of resistance to anti-tuberculosis drugs among patients suffering from pulmonary tuberculosis and also of the number of infections by atypical mycobacteria, in three hospitals in Laos (Vientiane, Thakhek, Luang Prabang).



TRAINING IN EPIDEMIOLOGY

As part of a collaborative project with Fondation Mérieux, the IFMT (Franco-phone Institute for Tropical Medicine) is currently completing the epidemiological training of doctors from Laos. The Rodolphe Mérieux Laboratory can therefore recruit trained students, who notably have worked with the IFMT on the multi-center study into resistant strains of tuberculosis, carried out in 2010 at three hospitals in Laos and extended in 2011.

THAKHEK: RATIONAL FOR PRESCRIBING ANTIBIOTICS

As part of the cooperation between the Rhône-Alpes Region and the Khammouane Province, and in partnership with the Hospices Civils de Lyon, the Claude Bernard Lyon 1 University and Fondation Mérieux, the microbiological diagnosis laboratory in Thakhek has worked since 2009 on bacterial cultures and the production of antibiograms.

Local staff were trained to highlight the sensitivity of the germs and to recommend the most appropriate antibiotherapy, in order to avoid the systematic use of antibiotics which promotes the emergence of resistant strains.

In October 2011, Thakhek Hospital organized on this theme the "First infectious and Laboratories Day". Gathering together almost 60 representatives from WHO, the National Centre of Laboratories and Epidemiology, hospital laboratories of neighbouring provinces and hospitals in Khammouane.



CAMBODIA

A NEW HOSPITAL LABORATORY

In 2011, Fondation Mérieux financed building work to create a microbiology unit at Kossamack Hospital. This hospital, traditionally known as the "Hospital of the Buddhist monks", is one of Cambodia's main national hospitals. From now on, the laboratory will provide support to its departments (surgery, pneumology, gynecology, etc.) on the identification of infectious microbes and the treatment of patients.

RESEARCH INTO DIARRHEA-RELATED DISEASES IN TAKEO

In developing countries, diarrhea-related diseases remain the second most frequent cause of death in children below the age of five. The infectious agents responsible for diarrhea may be bacterial (for example, *Salmonella* spp, *Vibrio Cholera*, *Escherichia coli*, *Enterobacteria*, *Shigella* spp), viral (Hepatitis A, norovirus, rotavirus and enterovirus) or parasitic (*Giardia*, *Taenia saginata*).

Thanks to support from DSO, the national laboratory of Singapore, and Fondation Mérieux, the Rodolphe Mérieux Laboratory of Cambodia has been able to develop a research programme at the provincial hospital of Takeo.

The main objective of this project, which involves a cohort of 400 patients, is to monitor the pathogenic agents responsible for acute diarrhea in children in Cambodia, thanks to the development of an adequate system of molecular diagnosis and optimized use of the tools available at the Rodolphe Mérieux Laboratory for better identification of the etiological agents.

The conclusions of this study into the creation of new diagnostic tests and an analysis of the results will be published in 2012.

A KEY PARTNERSHIP IN PHARMACOLOGY

The Rodolphe Mérieux Laboratory has an analytic platform, in particular for HPLC*, which is used for the plasma measurement of antiretrovirals and anti-malarial drugs.

This is the only such platform in the country, making the laboratory a key partner for clinical pharmacology in Cambodia, as has been demonstrated by the usefulness of trials of measurements of antiretrovirals carried out in 2010.

In 2011, the Rodolphe Mérieux Laboratory worked on the measurement of antimalarial drugs (Chloroquine, Mefloquine, etc.) that are not yet available in the country. New protocols and the necessary equipment were provided to continue and refine the development of these measurements. These advances help to strengthen the country's autonomy in its fight against malaria.

* HPLC : High-Performance Liquid Chromatography



CHINA

DECENTRALIZATION OF THE DIAGNOSIS OF RESISTANT TUBERCULOSIS

Since 2009, Fondation Mérieux has been collaborating with the Chinese Ministry of Health and the National Reference Laboratory for Tuberculosis (Center for Disease Control) to increase diagnostic capabilities for patients whose tuberculosis treatment is not proving effective, in the provinces of Zhe Jiang and Heilong Jiang.

Four studies are currently in progress, concerning 1,400 people with suspected tuberculosis. They aim to evaluate the performance of different diagnostic tools for multi-resistant tuberculosis.

MONITORING RESPIRATORY INFECTIONS

The Christophe Mérieux Laboratory is continuing its joint initiatives with the city's three major hospitals to monitor respiratory infections in the Beijing province. More than 2,000 patients were diagnosed since 2005. This cohort has made it possible to carry out several research projects into the pathogens encountered (flu viruses, metapneumoviruses, RSV, *parainfluenza* viruses, bocaviruses, adenoviruses, and coronaviruses) and their epidemiology, leading to the publication of nine articles in 2011.

CAMBODIA

D.E.S. IN MEDICAL BIOLOGY: APPROACHING ITS 10TH ANNIVERSARY

Supported by the foundation since 2003, the DES in Medical Biology is a doctorate-level postgraduate degree awarded by Cambodia's University of Health Sciences and is open to doctors and pharmacists.

The objective of this three-year course, which combines theoretical modules, practical work and obligatory hospital work placements, is to train biologists from hospitals and national healthcare organizations, teachers and researchers choosing a career at a university hospital and biologists aiming to work in the private sector.

The degree course covers all subjects connected to biological diagnosis of human pathologies, as well as the foundations of physiopathology, clinical work, treatment, epidemiology and prevention.

A similar course is currently being implemented at the University of Health Sciences in Laos.

A NEW MICROBIOLOGY NETWORK

Officially recognized by the Cambodian Ministry of Health, this network, which is currently being developed, has a number of objectives: the development of infrastructure and quality procedures, the uniformization of protocols, staff training and improved monitoring of infectious diseases in Cambodia.

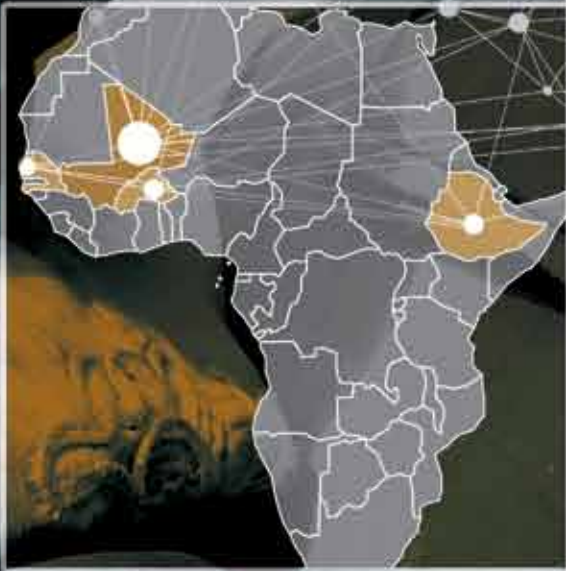
Reporting to and coordinated by the Cambodian Ministry of Health, the network will bring together the initiatives of numerous partners and public health stakeholders, including WHO, the Canada-Asia Regional Emerging Infectious Disease Project (CAREID), the Institute of Tropical Medicine (ITM) in Antwerp (Belgium), the Diagnostic Microbiology Development Program (DMDP), and Fondation Mérieux.



PROSPECTS FOR 2012

- Renovation of the Svay Rieng microbiology laboratory in Cambodia
- Expansion of the Christophe Mérieux Centre of Infectiology in Laos
- Implementation of a network of district hospital biology laboratories in the Khammouane province of Laos, in partnership with the Rhône-Alpes Region
- Creation of a Rodolphe Mérieux Laboratory in Bangladesh

BURKINA FASO
ETHIOPIA
MALI
SENEGAL



In 2011, having been active in the region for a number of years, Fondation Mérieux carried out long-term structural projects such as the RESAOLAB project, which has now fully entered its operational phase.

MORE THAN
80 PATIENTS PER DAY AT
THE RODOPHE MÉRIEUX
LABORATORY
IN BAMAKO

COMING
FROM 8 COUNTRIES,
76 TECHNICIANS
GRADUATED IN BAMS
SINCE 2007



AFRICA

RESAOLAB:
*RÉSEAU D'AFRIQUE DE L'OUEST
DES LABORATOIRES*
(WEST AFRICAN LABORATORY
NETWORK)

Co-financed to the amount of €3 million over four years by the *Agence Française de Développement* (AFD) and Fondation Mérieux (€1 million), this ambitious initiative is being implemented by the foundation in close collaboration with the Ministries of Health of Burkina Faso, Mali and Senegal. The project was launched in 2009 and is due for completion at the end of 2012.

RENOVATION
AND EQUIPPING
OF 12 TRAINING
CENTRES

1,500
LABORATORIES
PROFESSIONALS
TRAINED

IN EACH COUNTRY,
15 LABORATORIES
HAVE BEEN
EQUIPPED
WITH COMPUTERS



RESAOLAB : THE WEST AFRICAN LABORATORY NETWORK

The purpose of RESAOLAB is to improve the health of West African populations and to combat infectious diseases (such as HIV/AIDS, tuberculosis and malaria), by strengthening and harmonizing diagnostic capabilities in Burkina Faso, Mali and Senegal.

This programme comprises activities such as:

- continuous training for laboratory staff;
- creating training and quality assurance centres;
- strengthening and harmonization of quality assurance;
- reinforcing epidemiological monitoring via the laboratories;
- laboratories networking.

In 2011, there was an acceleration of the project's operational phase, with:

- the creation of four training centres in each of the three countries;
- delivery of IT and other equipment for these laboratories;
- launch of the design of the Information System for Laboratory Management;
- training of training staff;
- and the start of the first training courses for technicians, biologists and biomedical engineers.

The expansion of the RESAOLAB project to include other West African countries, such as Benin, Niger, Guinea and Togo, is planned for 2012 following requests from these countries.

RESAOLAB IN FIGURES

In each of the three countries:

- 15 trainers and 100 laboratory professionals have been trained
- 9 continuing vocational training modules have been developed for laboratory staff
- 1 national laboratory and 3 regional laboratories responsible for quality and training have been renovated and equipped in accordance with biosecurity and quality standards
- 15 laboratories in national and regional hospitals have been equipped with IT equipment
- Quality control: 103 laboratories in Burkina Faso, 67 laboratories in Mali and 104 laboratories in Senegal monitored at least once per year (representing 80% of all public and private laboratories)
- 300 public and private laboratory professionals trained in quality issues



MALI

4TH INTAKE OF GRADUATES IN BAMS

Managed by the Charles Mérieux Centre of Infectiology in Bamako, the Bachelor of Science in Biological and Applied Medical Sciences (BAMS) has run since 2008 in partnership with the Faculty of Medicine and Pharmacy of Bamako and the ESTBB (School of Biology, Biochemistry and Biotechnology at the Catholic University in Lyon). In 2011, 15 laboratory technicians followed this 8-month training course, which results in a qualification and is dedicated to improving medical analysis skills and observing laboratory quality processes. In 2011, a partnership with the Islamic Development Bank made it possible to create a remote training platform for e-learning modules, in order to eventually reduce the duration of the training course and thus the time that the laboratory technicians are absent from their jobs.

EPIDEMIOLOGY OF MULTI-RESISTANT TUBERCULOSIS IN MALI

A project aimed at evaluating the impact of resistance to treatments in Mali is underway at the Charles Mérieux Centre of Infectiology in Bamako. It looks at the epidemiology of multi-resistant strains and atypical mycobacteria originating at the Gabriel Touré Hospital.

LABOMEDCAMP: RURAL MEDICAL LABORATORIES

The LABOMEDCAMP (Laboratoires Médicaux de Campagne) project was launched as part of a partnership signed in 2011 between Fondation Mérieux and Monaco's Office of International Cooperation and Development and implemented in partnership with the NGO Santé Sud. Its objective is to improve the quality of healthcare in Mali by establishing nine analysis laboratories in three pilot regions, and then to integrate these laboratories into national quality control and epidemiological monitoring systems.

PREVALENCE OF HEPATITIS B

A project supported by Roche in partnership with the International Agency for Research on Cancer in Lyon, aims to gain a better understanding of the prevalence of the infection by the hepatitis B virus.

RETURN TO WORKING LIFE FOR WOMEN LIVING WITH HIV

This programme, which is run in partnership with the Women's Association for Aid and Support to Widows and Orphans of AIDS, aims to improve the health and income of these women and their family by developing their abilities to run commercial activities.

The project was launched in 2010 and involves the group buying fabric and kitchen utensils which are distributed in batches to each woman, who must then reimburse the project for the initial stock by selling the products at markets.

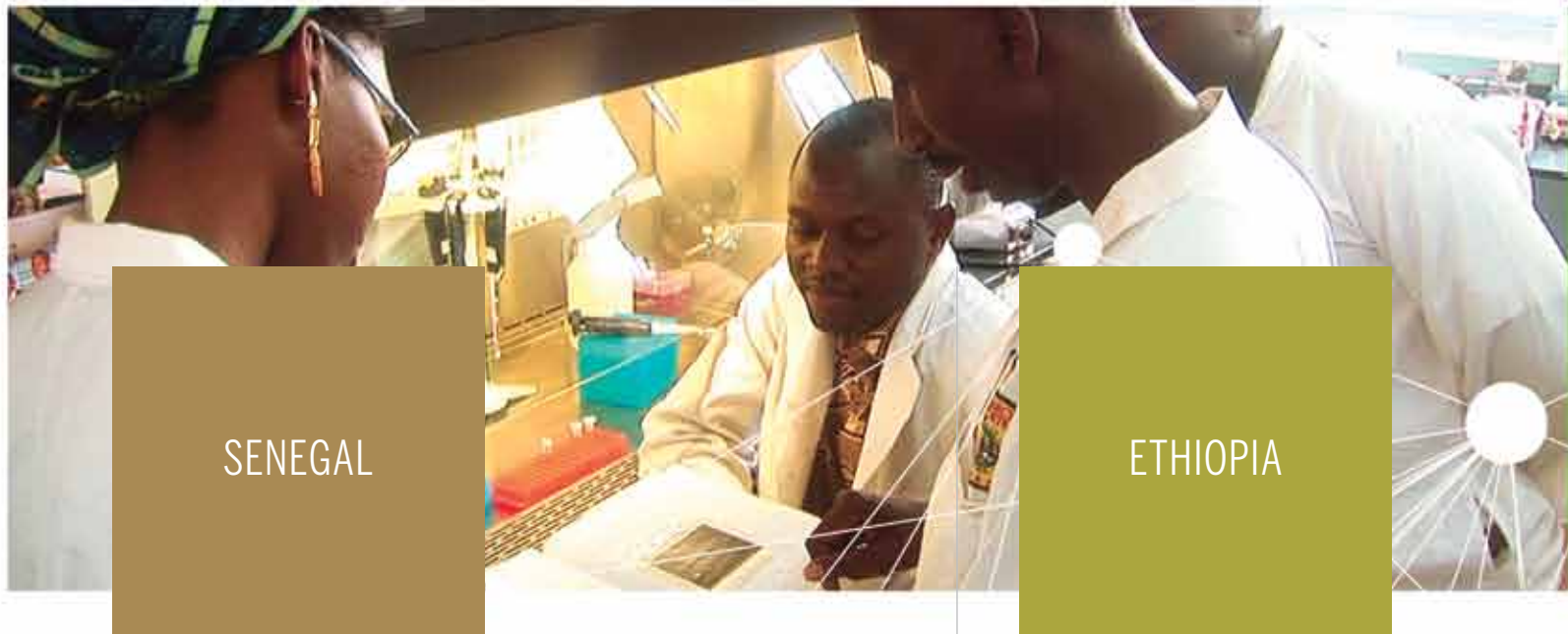
The purpose of this initiative has helped to improve the living conditions of 50 women, and their families, living with HIV.

SUPPORT FOR MEDICAL OUTREACH SERVICE

Since 2005, Fondation Mérieux and the Rodolphe Mérieux Laboratory in Bamako have contributed to developing the activities of the medical outreach service for the homeless in Mali, with regard to treatment for street children. The foundation finances medicinal products, consultations, hospitalizations and laboratory-based medical analyses for these children.

The activities carried out by the medical outreach service include treatment in the street during nighttime patrols, medical care for children during the day, the organization of health education activities, and accompanying young people to national vaccination programmes and preventive treatment programmes.

In 2011 in Mali, the medical outreach service carried out 588 medical treatments while out on patrol, 55 hospitalizations and 429 patrols.



SENEGAL

SUPPORT FOR MEDICAL OUTREACH SERVICE FOR STREET CHILDREN

In Senegal, the foundation supports the medical outreach service for the homeless of Dakar in the form of an allowance for the medical treatment of children. In 2011, almost 1,700 cares were given and 100 children were admitted to an infirmary and/or hospital.

DIAGNOSIS OF TUBERCULOSIS

In partnership with WHO and the Foundation for Innovative Diagnostics (FIND), expert missions have been carried out with the objective of renovating several tuberculosis laboratories (Dakar, Kaolac, and Saint-Louis) and facilitating the introduction of molecular and culture-based diagnosis of tuberculosis and its resistance to treatment.

THE VOICES PROJECT

VOICES, (VOIce-based Community-cEntric mobile Services for social development), was initiated and is coordinated by the World Wide Web Foundation. It is financed by the European Commission and was launched in Dakar in 2011 with Fondation Mérieux and other consortium members: W3C / ERCIM, Orange, TNO, VU, CRS4, CSIR, Sahel Eco, the Multinational Higher School of Telecommunications, Portugal Telecom Innovation, and North West University.

The project aims to explore and develop the possibility of web access using mobile phones in West Africa.

Fondation Mérieux, in close collaboration with Senegal's National Laboratory Network, will test the feasibility and utility of a system of epidemiological monitoring and training via a new voice-based mobile phone service in health centers that do not have an Internet connection.

ETHIOPIA

IMPROVING ACCESS TO THE DIAGNOSIS AND TREATMENT OF TUBERCULOSIS IN SOUTHERN ETHIOPIA

Implemented by the association Inter Aide with the support of Fondation Mérieux and the European Union, the programme to fight tuberculosis has three objectives: to increase public awareness of infection and treatment; to facilitate access to diagnostics; and to improve the quality of microscopic diagnosis at local health centres.

Within this framework, numerous activities with very promising results have taken place in the rural Wolayta region, situated in southern Ethiopia, since the agreement was signed in 2008. Thanks to the provision of microscopes in around 20 health centres, the training of more than 50 laboratory technicians, and awareness-raising activities by community personnel, there has been a 125% increase in the number of cases of contagious tuberculosis identified in the Wolayta region. The delay between the appearance of symptoms and diagnosis, and the onset of treatment at a health centre decreased from 75 to 34 days between 2006 and 2009. Finally, during this same period, the mortality rate for this disease decreased from 7% to 3%.

In November 2011, a poster on this project was presented at the 42nd World Conference of the International Union Against Tuberculosis and Lung Disease in Lille, France.

SUPPORT FOR PROJECTS RUN BY ASSOCIATIONS IN AFRICA IN 2011

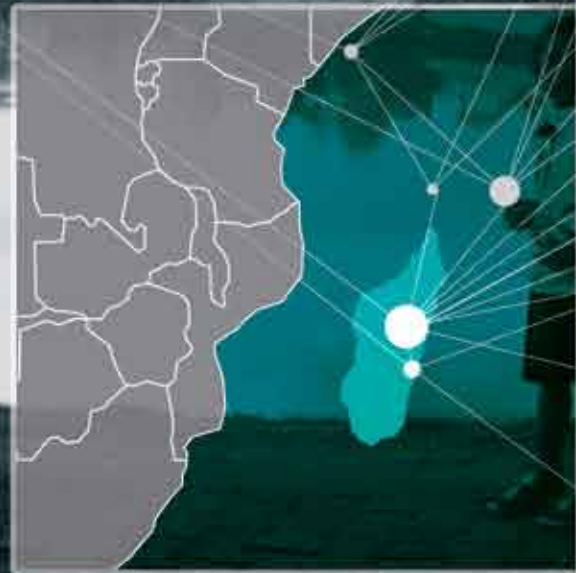
Fondation Mérieux gave grants to a number of associations for local projects in Africa.

ASSOCIATIONS	PROJECT SUPPORTED
COMMUNAUTÉ DE SANT'EGIDIO-ACAP ONLUS (COMMUNITY OF S. EGIDIO-ACAP ONLUS)	"Dream" Centre for protection of mother and child in Conakry (Republic of Guinea)
RISEAL-BURKINA (African network for research on schistosomiasis)	Genital schistosomiasis in women in rural environments: differential diagnosis of sexually transmissible infections (Burkina Faso)
ORISADE (INTERNATIONAL ORGANIZATION FOR HEALTH AND DEVELOPMENT)	Treatment of impoverished mothers and children aged 0-5 years suffering from malaria, tuberculosis and HIV/AIDS in Bafoussam (Cameroon)
ACCA (CANTAL ASSOCIATION IN AFRICA)	Construction of an analysis laboratory in Boma (Democratic Republic of Congo)
SORO-SAINT-MICHEL SUR RHÔNE TWINNING ASSOCIATION	Reopening of an infirmary building in the city of Gassan (Burkina Faso)
ASSOCIATION TO SUPPORT THE DISABLED AND UNDERPRIVILEGED CHILDREN	Mutual health insurance for disadvantaged children in Bamako (Mali)
CHEIKH ANTA DIOP UNIVERSITY OF DAKAR	University degree in biological retrovirology (Senegal)
SIDACTION	University for young researchers 2011

PROSPECTS FOR 2012

- Monkole Hospital in Democratic Republic of Congo
- Expert mission to extend RESAOLAB (West African Laboratory Network) to Benin, Guinea, Niger and Togo

MADAGASCAR





Since the start in 2010 of the Charles Mérieux Centre of Infectiology located on the campus of the University of Antananarivo and the pursuit of several studies and projects carried out by the Rodolphe Mérieux Laboratory, the Foundation confirms its commitment and its involvement in strengthening medical laboratory capacities in Madagascar.

3 REGIONAL
HOSPITAL
LABORATORIES
RENOVATED

SET UP
OF A TRAINING
AND RESEARCH
CENTRE

INDIAN OCEAN

IMPROVING THE DIAGNOSIS OF MULTI-RESISTANT TUBERCULOSIS

The Rodolphe Mérieux Laboratory is working on the epidemiology of multi-resistant strains of tuberculosis in partnership with the mycobacterial laboratory of the National Reference Centre of Madagascar, hosted by the Institut Pasteur. The objective of the current diagnostic study is to compare conventional methods for the diagnosis of resistance by culture with a rapid method based on molecular biology. The cohort comprised patients undergoing anti-tuberculosis treatment and suspected not to be responding to it after five months of therapy. The results, so far, show a very good degree of correlation between the two methods. This collaboration between the two institutions is expected to continue.

1ST INTAKE
OF 25 STUDENTS
GRADUATED
IN PHARMACY



2,000 CHILDREN FOLLOWED IN THE STUDY ON FEVERS WITH UNKNOWN ETIOLOGY

UNIVERSITY OF ANTANANARIVO: STUDENTS TRAINED IN PHARMACY

In October 2009, the Madagascar Ministry of Health launched an operational research project in partnership with Fondation Mérieux, the Charles Mérieux Centre of Infectiology, the NGO Reggio Terzo Mondo and the Ampasimanjeva Medical Foundation.

The objective of this study is to identify the etiology of fevers in children aged from 2 to 59 months and to understand why 60% of fever syndromes in Madagascar are not caused by malaria.

This project is being carried out with a cohort of 2,000 children living in the south-east of Madagascar. When a rapid diagnostic test (RDT) enables malaria to be ruled out, feverish children are transferred to the hospital of the Ampasimanjeva Medical Foundation. If the fever is associated with respiratory or digestive problems, a sample is taken and sent to the Rodolphe Mérieux Laboratory in Antananarivo to establish with certainty the different pathogens responsible for respiratory or diarrhea infections.

At the same time, research into sickle-cell disease is also being carried out on all children examined, thanks to a new technique recently made available at the Rodolphe Mérieux Laboratory.

The results of these molecular analyses are then checked against other data relating to the patient (blood group, gender, age, etc...). The aim of this study is to improve the treatment of patients, reduce inappropriate prescription and use of antimalarials and unsuitable antibiotics, and thereby to contribute to reducing the emergence of resistant strains.

The project is part of a three-way collaboration between: Fondation Mérieux, Caprion and Institut Mérieux. The aim of this project is to differentiate acute lower respiratory infections from malaria.

Since 2006, Fondation Mérieux has been a partner with Fondation Pierre Fabre and the Universities of Pharmacy of Grenoble and Toulouse (France) in improving the training of pharmacy students thanks to the refurbishment of lecture and practical rooms, and the elaboration of course contents. This 1st intake of 25 students graduated in 2011 after 5 years of study. 11 of them were recruited as hospital pharmacists.

TWO NEW TRAINING PARTNERSHIPS AGREED IN 2011

In 2011, Fondation Mérieux signed two new conventions:

- Agreement with the Institut Pasteur of Madagascar and Paris to set up a training course in Bio-IT;

- Agreement with the University of Bordeaux 2 and the University of Antananarivo to set up a training course in epidemiology/statistics.



MONITORING OF TYPHOID AT THE CHARLES MÉRIEUX CENTRE OF INFECTIOLOGY

Typhoid fever and paratyphoid fever are caused by *Salmonella* bacteria (*Salmonella typhi*, *Salmonella paratyphi A*, *Salmonella typhimurium* and *Salmonella enteritidis*), which spread through contaminated water or food. WHO estimates that typhoid affects 17 to 22 million people per year, killing up to 600,000. Typhoid fever therefore remains one of the world's biggest public health issues, mainly affecting children in developing countries.

Since September 2011, the Charles Mérieux Centre of Infectiology in Madagascar has hosted a project on monitoring typhoid, which is being run by the University of Antananarivo in partnership with the International Vaccine Institute and the Bernhard Nocht Institute of Tropical Medicine in Hamburg, Germany. This is a multicentric study being carried out in Africa, which aims to evaluate the incidence of typhoid (*Salmonella Typhi* and *Paratyphi A*) and also antibiotic resistance. The field study, which includes 1,000 patients, is taking place in Madagascar, at health centres situated near Antananarivo. Bacteriological samples are sent daily to the Charles Mérieux Centre for growing cultures.

SUPPORTING VULNERABLE PEOPLE'S HEALTH

As well as increasing clinical biology capabilities, the foundation is trying to improve access to healthcare for vulnerable people suffering from infectious diseases, particularly women and children:

- Care given through specialist consultations and/or treatment for 100 impoverished children in 2011

- Training in pediatric care, for doctors and nurses of the Lutheran Hospital of Antsirabe, as part of a partnership with the pediatric department of the South Reunion Island Group of Hospitals

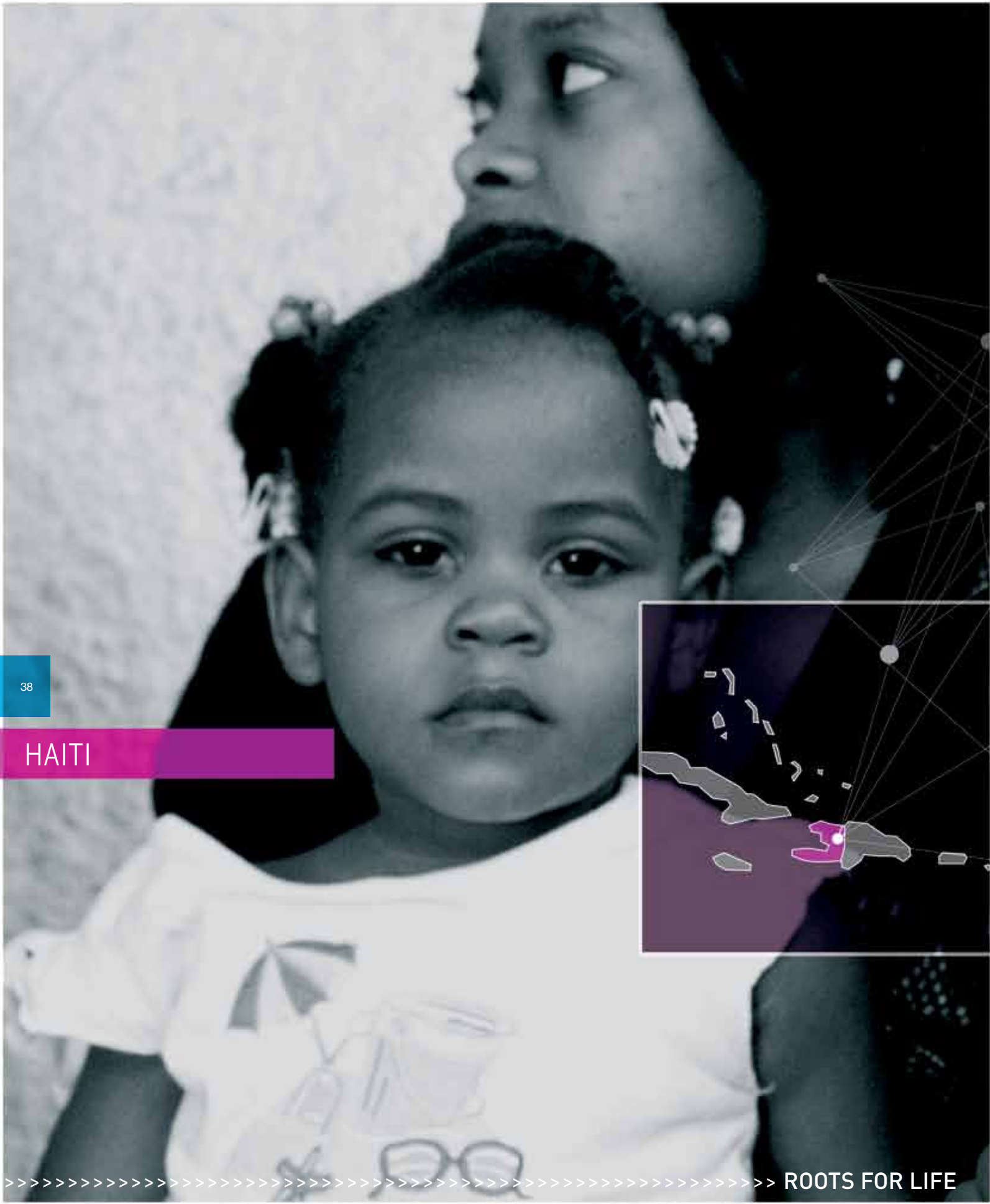
- Pharmacies set up for Mivarotra and Manaode street children associations

- Ave Maria Clinic in Antsirabe: training of healthcare staff in the use of rapid diagnostic tests; vaccination against hepatitis B offered to all staff; screening of 600 pregnant women through rapid diagnostic tests during prenatal consultations; vaccination and serological monitoring offered to the newborn babies from mothers infected with hepatitis B virus

- Training of laboratory technicians of the three District Hospitals and donations of equipment

- Skills development and training for laboratory staff at the Regional Hospital (CHRR) of Fort-Dauphin

HAITI

[illegible]



Following the terrible earthquake that hit Haiti in January 2010, Fondation Mérieux, Fondation Christophe et Rodolphe Mérieux, Institut Mérieux and its companies committed to a long-term programme of support for the country.

1ST BAMS TRAINING
ORGANISED IN HAITI:
18 GRADUATED
LABORATORY
TECHNICIANS

SINCE 2005,
2,500 WOMEN
BENEFITED FROM
THE MICRO-LOAN
PROGRAMMES

THE CARIBBEAN

A LONG-TERM COMMITMENT

The Foundation intensified its support to its long-standing partner, GHESKIO, by working to increase the country's medical diagnosis capabilities. There are currently 70 people working at the Rodolphe Mérieux Laboratory, which was set up by the Foundation within GHESKIO and which diagnoses multi-resistant tuberculosis, cholera and HIV, playing a key role in the fight against infectious diseases and the prevention of epidemics.

Professor Jean-William Pape, founder of GHESKIO, is also an active member of the GABRIEL Network, bringing to it his expertise in infectiology and his knowledge in the field.

IN 2011,
400 BENEFICIARIES
OF THE SOLIDARITY
FUND
PROGRAMMES



CONTROLLING INFECTIOUS DISEASES IN THE CAMPS

LAUNCH OF BAMS TRAINING COURSE IN HAITI

In the aftermath of the catastrophe, the GHESKIO Centre arranged to host thousands of people in need of refuge on a land next to the Centre. The foundation supported it by providing its biomedical know-how in order to control infectious diseases as much as possible. The Rodolphe Mérieux Laboratory played a crucial role in this.

Today, the GHESKIO-EDH camp accommodates almost 7,000 people, including 2,000 children under ten. These displaced people live in 424 tents, within 32 designated “areas”, enabling the organizers to maintain up-to-date statistical information about the inhabitants and to facilitate the monitoring of health issues and carry out preventive action (such as the isolation of patients suffering from multi-resistant tuberculosis).

The population benefits from an epidemiological screening service to identify anyone presenting the following symptoms: cough, fever, diarrhea and rash, and to begin clinical treatment if necessary. An awareness campaign about sexual violence has been implemented, to encourage victims to speak out and accept medical and psychological treatment, both short and long-term.

In the autumn 2011, a nutrition programme was launched for 1,600 children (from 0 to 5 years) and almost 700 breastfeeding women.

After the success of the BAMS training course set up in Mali four years ago, Fondation Mérieux decided to implement it in Haiti. Thus, the Bachelor of Science in Biological and Applied Medical Sciences (BAMS) organized in partnership with the ESTBB (School of Biology, Biochemistry and Biotechnology at the Catholic University in Lyon) and the National Laboratory of Public Health in Port-au-Prince accepted 18 Haitians for the first programme, from September 2011 to April 2012.

The purpose of this training course, which leads to a qualification, is to enable technicians to increase their skills in biomedical analysis and their knowledge of quality assurance regulations.

The AnBer Foundation provided support for this training course with funding for equipment.



SUPPORTING HAITIAN WOMEN AFFECTED BY HIV

CONTINUATION OF THE UNITAID/ EXPAND TB PROGRAMME AT GHESKIO CENTRES

Launched in Haiti in 2005, the micro-loan programme aimed at women living with HIV who are receiving treatment from GHESKIO was continued and expanded in 2011, still in partnership with ACME (Association for Cooperation with Micro-Enterprises).

The women who benefit from these micro-loans live in the areas surrounding the GHESKIO centers in Port-au-Prince. They follow trainings to help them to set up an activity that generates income and to manage a loan and a commercial activity. In 2011, 404 women received training and assistance.

Despite the period of crisis that Haiti went through during the months following the earthquake, the micro-loan programme has been a great success, with a significant increase in the average level of repayment of the loans (76%) and a successful return to active life for many women.

This activity has a significant impact on living conditions and continues to be necessary for a population that is still experiencing great difficulties: 2,500 women have benefited from the programme since it began.

The validation of new technological tools, coordinated by FIND and Fondation Mérieux, is complete (identification of multi-resistant tuberculosis through rapid tests, liquid medium culture and molecular tests for resistance). These technologies have now been integrated into the routine diagnostic process at GHESKIO centers, the supply of the laboratory reagents for these technologies having been guaranteed for three years through financing from UNITAID.

In 2012, Haiti will take part in a project to identify new molecular markers for resistance to anti-tuberculosis drugs.

GOVERNANCE

BOARD OF DIRECTORS

Representatives of the Founding Members

Alain MÉRIEUX - *President*
Claudine FRIEH
Karine MEHLER
Alexandre MÉRIEUX
Sophie MÉRIEUX

Qualified persons

Pr. Christian BRÉCHOT
Didier CHERPITEL
Pr. François GROS
Pr. David HEYMANN
Dominique PELLA
Pr. Dominique PEYRAMOND
Dr. Robert SEBBAG

Government representative

The Prefect of
the Rhône-Alpes Region

MANAGEMENT COMMITTEE

Benoît MIRIBEL
Director General

Philippe LACOSTE
Secretary General

Guy VERNET
Scientific Director

Dr. Christophe LONGUET
Medical Director

Dr. François-Xavier BABIN
International Development Director

SCIENTIFIC COMMITTEE

Pr. Françoise BARRÉ-SINOUSSE
Institut Pasteur (France)

Pr. Steward COLE
*École Polytechnique Fédérale
de Lausanne (Switzerland)*

Pr. Ogobara DOUMBO
*Malaria Research and Training Center
Bamako (Mali)*

Pr. Pierre-Marie GIRARD
*Institut de Médecine et d'Épidémiologie
Appliquée - Hôpital Bichat, Paris (France)*

Pr. David HEYMANN
Health Protection Agency (United Kingdom)

Dr. Kai Man KAM
*Laboratoire de Référence sur
la Tuberculose du Ministère
de la Santé - Hong Kong (China)*

Pr. Arnold S. MONTOM
Université du Michigan (USA)

Pr. Johan NEYTS
*Faculté de Médecine de l'Université
de Louvain (Belgium)*

Pr. Albert OSTERHAUS
*Université ERASMUS de Rotterdam
(The Netherlands)*

Pr. Fabien ZOULIM
INSERM - Lyon (France)



MAIN FINANCIAL PARTNERS

- Advamed
- Agence Française du Développement (AFD)
- Agence Universitaire de la Francophonie (AUF)
- Ahimsa Partners
- American Society of Microbiology (ASM)
- Bill and Melinda Gates Foundation
- Biokit
- bioMérieux
- European Commission
- European Diagnostic Manufacturers Association (EDMA)
- European Society for Paediatrics Infectious Diseases (ESPID)
- Fondation AnBer
- Fondation Christophe et Rodolphe Mérieux
- GlaxoSmithKline Biologicals
- IMAccess
- Institut Mérieux
- Institut Pasteur
- Institut de Recherche Biomédicale des Armées (IRBA)
- Islamic Development Bank
- London School of Hygiene and Tropical Medicine (LSHTM)
- National Foundation for Infectious Diseases (NFID)
- Monaco's Office of International Cooperation and Development
- National Center for Scientific Research (CNRS)
- National Institute of Allergy and Infectious Diseases (NIAID)
- Novartis
- Pfizer
- Qiagen
- Région Rhône-Alpes
- Sanofi Pasteur
- Sanofi Pasteur MSD
- The Global Fund to Fight AIDS, Tuberculosis and Malaria
- United Nations Development Programme (UNDP)
- University of Geneva
- Wellcome Trust
- World Health Organization (WHO)

2011 ACCOUNTS & KEY FIGURES

BALANCE SHEET

ASSETS (€'000)	Net Dec. 31, 2011	Net Dec. 31, 2010
FIXED ASSETS		
Intangible fixed assets	14	4
Property, plant and equipment	3,693	4,256
Investments and other financial assets	17,507	16,634
Total	21,213	20,894
CURRENT ASSETS		
Inventories	7	5
Payments on account	104	5
Accounts receivable	1,005	1,206
Other receivables	2,662	3,734
Marketable securities	68,753	74,088
Cash and cash equivalents	3,073	1,294
Prepaid expenses	415	636
Total	76,021	80,968
TOTAL ASSETS	97,234	101,862
LIABILITIES AND FUND BALANCE (€'000)		
FUND BALANCE		
Dotation	64,916	64,916
Reserves	884	884
Retained earnings	28,099	28,357
Net income / loss for the period	(3,665)	(259)
Total	90,234	93,899
Allowances for contingencies	243	242
Funds reserved for future engagements	1,403	1,137
LIABILITIES		
Loans	72	0
Accounts payable	1,819	2,473
Investment payable	0	0
Other payable	955	1,378
Deferred income	2,470	2,730
Total	5,355	6,584
TOTAL LIABILITIES AND FUND BALANCE	97,234	101,862

INCOME STATEMENT

(€'000)	Real 2011	Real 2010
INCOME		
Services revenue	277	191
Grants	672	496
Reverse on operating allowances	7,210	7,017
Expenses refund	238	175
Other operating income	17	14
Total income	8,414	7,891
EXPENSES		
External purchases and expenses	5,223	6,384
Taxes and duties	674	477
Salaries	1,909	1,396
Social contributions	892	661
Depreciations	626	671
Donations and subsidies received	3,921	4,354
Grants awarded	35	35
Net book value of sold assets	-	-
Other operating expenses	-	18
Total expenses	13,280	13,995
CURRENT INCOME	-4,866	-6,104
FINANCIAL INCOME		
Dividends	814	4,608
Other financial income	25	28
Reverse on financial allowances	63	677
Net income from marketable securities	1,554	1,369
Total financial income	2,456	6,682
FINANCIAL EXPENSES		
Financial allowances	913	309
Other financial expenses	23	24
Total of financial expenses	935	333
FINANCIAL RESULT	1,520	6,349
EXCEPTIONAL INCOME		
Exceptional income	2	-
Exceptional reverse on allowances	-	61
Total exceptional income	2	61
EXCEPTIONAL COSTS		
Exceptional expenses	57	-
Exceptional allowances for contingencies	-	-
Total exceptional expenses	57	-
EXCEPTIONAL RESULT	-55	61
Income tax	-2	-1
TOTAL INCOME	10,871	14,635
TOTAL EXPENSES	14,271	14,327
INTERMEDIATE BALANCE		
Prior funds carried forward	1 137	571
Funds reserved for future engagements	1,403	1,137
NET INCOME / LOSS FOR THE PERIOD	-3,665	-259

2011 ACCOUNTS & KEY FIGURES

USE OF FUNDS STATEMENT

EXPENSES (USES) (€)	Real 2011
MISSIONS	9,891,925
Clinical biology laboratories	841,856
Collaborative research programmes	2,694,957
Training and knowledge sharing	4,241,160
Support for local initiatives	1,112,499
Support for local structures	256,092
International offices	702,355
Specific projects and exploratory missions	43,006
FUND-RAISING EXPENSES	836,784
OPERATING EXPENSES	1,990,293

INCOME (FUNDS) (€)	Real 2011
DONATIONS AND LEGACIES	671,823
Donations	302,406
Legacies	369,417
OTHER PRIVATE FUNDS	5,607,692
Sponsorship/ Patronage	3,356,800
Grants from Fondation Christophe et Rodolphe Mérieux	1,252,794
Other grants	998,098
GRANTS AND OTHER PUBLIC FUNDING	1,602,152
OTHER INCOME	2,913,453
Services revenues	277,415
Refund of expenses	225,047
Other financial income	1,582,731
Dividends	828,260

TOTAL EXPENSES FOR THE PERIOD	12,719,003
ALLOWANCES	912,788
DEPRECIATION	626,199
FUNDS RESERVED FOR FUTURE ENGAGEMENTS	1,402,815
ACCOUNTING RESULTS (PROFIT)	-
GRAND TOTAL	15,660,804
Evaluation of in-kind patronage	5,222

TOTAL INCOME FOR THE PERIOD	10,795,120
REVERSE ON ALLOWANCES	62,916
PRIOR FUNDS CARRIED FORWARD	1,137,327
ACCOUNTING RESULTS (DEFICIT)	3,665,441
GRAND TOTAL	15,660,804
Evaluation of in-kind patronage	5,222

17 rue Bonaparte
40000 L'Isle-sur-Mer

**Statutory auditors' report
on the financial statements**
Year ended December 31, 2011

For a critical reflection on the English life insurance industry's current position, I have used a grounded theory to the commonwealth of England. The insurance industry is a complex organization that is highly regulated. It is a highly competitive market. The industry is a complex organization that is highly regulated. It is a highly competitive market. The industry is a complex organization that is highly regulated. It is a highly competitive market.

To the Director,

In accordance with our appointment as statutory auditors by your Committee, we hereby report to you for the year ended December 31, 2011 on:

- the audit of the accompanying financial statements of FONDATION MERIEUX;
- the justification of our assessments;
- the specific verifications and disclosures required by law.

These financial statements have been approved by the Committee. Our role is to express an opinion on these financial statements, based on our audit.

1. OPINION ON THE FINANCIAL STATEMENTS

We conducted our audit in accordance with professional practice standards applicable in France. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit involves examining, using sample testing techniques, evidence about the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made, as well as evaluating the overall financial statement presentation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

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PRODUCTION EDITOR

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In our opinion, the financial statements give a true and fair view of the financial position and the assets and liabilities of the Foundation as of December 31, 2011 and the results of its operations for the year then ended in accordance with accounting principles generally accepted in France.

II. JUSTIFICATION OF OUR ASSESSMENTS

In accordance with the requirements of article L.823-8 of the French Commercial Code (*Code de commerce*) relating to the justification of our assessments, we hereby inform you that our assessments covered the appropriateness of the accounting policies adopted.

These assessments were performed as part of our audit approach for the financial statements taken as a whole and contributed to the expression of our opinion in the first part of this report.

III. SPECIFIC VERIFICATIONS AND DISCLOSURES

We have also performed the specific verifications provided for by law, in accordance with the professional practice standards applicable in France.

We have no comment to make as to the list presentation and consistency with the financial statements of the information given in the financial report and in the documents addressed to the Directors with respect to the financial position and the financial statements.

Yilgorasan, June 8, 2012

The Summary Audit

DELOITTE & ASSOCIÉS

French original signed by Nathalie LOHENET CALMET

As statutory auditors of FUNDATION MIEREUX, we hereby confirm that the above translation of our audit report on the financial statements of FUNDATION MIEREUX for the year ended December 31, 2011 appropriately reflects the content and opinion of our original report issued in French language.

For identification purposes, we also consider a year ended December 31, 2011 alone.

- revenue of \$ 365 266 euros;
- operating income of 180 743 euros;
- net income of -7 687 441 euros;
- shareholders' equity of 90 253 722 euros;
- total assets and liabilities of 97 234 428 euros.

(Continued on next page)

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FINANCIAL HISTORY

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This is a free translation into English of the statutory auditors' report on the financial statements issued in the French language and is provided solely for the convenience of English speaking users.

The statutory auditor's report includes information specifically required by French law in such reports, whether qualified or not. This information is presented above the opinion on the financial statements and includes an explanatory paragraph discussing the auditor's assessments of certain significant accounting and auditing events. These assessments were considered for the purpose of basing on such opinion on the financial statements taken as a whole and not to provide separate assurance on individual account entries or on information taken outside of the financial statements.

This report should be read in conjunction with, and is intended to be consistent with, French law and professional auditing standards applicable in France.

4 November, June 22, 1912

The History of Auction

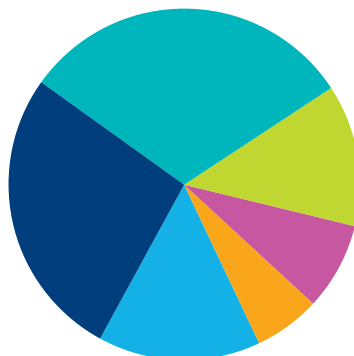
References & Sources


Nathaniel COLLINS, CANTON

Source: <http://www.fishbase.org>

BREAKDOWN OF 2011 INCOMES

*(not including provisions and
exceptional incomes)*



PARTNERSHIPS	31%
SPONSORSHIP AND SANOFI PASTEUR'S PATRONAGE	27%
FONDATION CHRISTOPHE ET RODOLPHE MÉRIEUX	15%
OTHER SPONSORSHIPS	13%
DONATIONS AND LEGACIES	8%
OTHER REVENUE	6%

BREAKDOWN OF 2011 EXPENSES

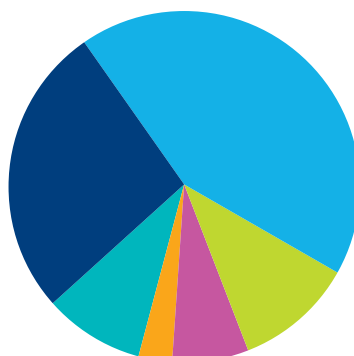
*(not including provisions
and exceptional expenses)*



MISSIONS	78%
ADMINISTRATION	16%
FUNDRAISING EXPENSES	6%

BREAKDOWN OF EXPENSES BY ACTIVITY

*(not including provisions
and exceptional expenses)*



TRAINING AND KNOWLEDGE EXCHANGE	43%
COLLABORATIVE RESEARCH PROGRAMMES	27%
SUPPORT FOR LOCAL INITIATIVES	11%
CLINICAL BIOLOGY LABORATORIES	9%
INTERNATIONAL OFFICES	7%
SUPPORT FOR LOCAL STRUCTURES	3%

GEOGRAPHICAL SEGMENTATION OF ACTIVITIES



EUROPE

(excluding scientific and medical coordination, and international development)

35%

AFRICA

29%

ASIA

21%

THE CARIBBEAN

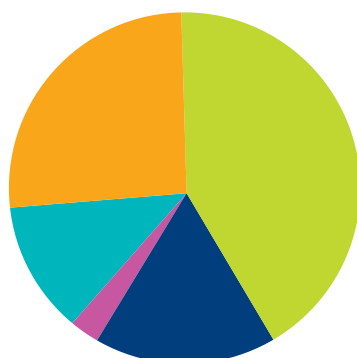
10%

INDIAN OCEAN

5%

STAFF GEOGRAPHICAL SEGMENTATION

117 persons worldwide



EUROPE

42%

AFRICA

26%

ASIA

17%

INDIAN OCEAN

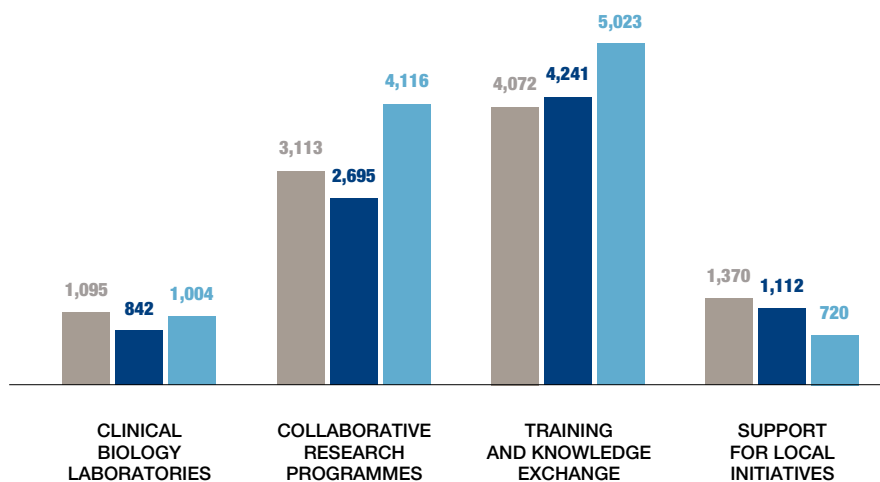
12%

THE CARIBBEAN

3%

EVOLUTIONS IN EXPENSES BY FIELD OF ACTIVITIES

(€'000)



■ 2010 ■ 2011 ■ ESTIMATE 2012



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