

# Annua Report **20**11

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# Letter from the Director



Pedro L. Alonso ISGlobal Director

2011 has been a fundamental year for us. This is the year when the Barcelona Institute for Global Health (ISGlobal) has borne its first fruits. The Think Tank, an area essential to influence the global health agenda, has produced its first publication, and the Education Centre has begun offering its first courses, while also focusing on the design of a Masters of Global Health. Further, our Research Centre, CRESIB, has solidified a growth trend in its scientific production, and the Technical Assistance Area has worked to increase the impact of our activities in regions where we have long-term collaborations: Sub-Saharan Africa, North Africa and Latin America. In addition, we launched new initiatives to contribute to global efforts in Maternal, Child and Reproductive Health, Neglected Tropical Diseases, Malaria Elimination, The Value of Aid, and The Global Health Agenda.

The idea of a centre of excellence in Southern Europe that addresses the major challenges in global health has become a reality thanks to the support of our Trustees, "la Caixa" Foundation, Hospital Clínic, University of Barcelona, Generalitat of Catalonia and Spanish Government. With them, our institute strives to resolve the unacceptable gap that, in the 21<sup>st</sup> Century, a person's birthplace still determines the right to life. We hope that the work carried out in 2011 will provide a solid foundation for the future.



Every euro that is cut from investment in cooperation and development is a euro that could be spent on preventing death. Society must maintain its commitment to helping the most vulnerable.



# Board of Trustees and International Advisory Committee

The Barcelona Institute for Global Health (ISGlobal) is the fruit of a collaboration between institutions from the public and private sector.

During 2011, the ISGlobal Board of Trustees membership was as follows:

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The International Advisory Committee for Global Health supports ISGlobal's Board to develop and achieve its mission and objectives. It is composed of prestigious individuals and institutions that are recognized experts in the areas where ISGlobal works.

Aga Khan Foundation

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Carlos Slim Health Institute

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The participation of new public and private actors has changed the face of the global health system. If we manage to consolidate these new, innovative forms of collaboration, we will be able to recover lost ground in the fight against disease and poverty.



# **Highlights from 2011**

### Continuing Malaria Eradication Efforts

The Malaria Eradication Research Agenda (malERA), led by CRESIB, the research centre of ISGlobal, culminated in 2011 with the publication of a monograph in *PLoS Medicine*. This document summarizes the main conclusions from a consultative process lasting two years, in which more than 250 scientists worldwide participated, and establishes a research and development (R&D) agenda to eradicate malaria.

Following in malERA's footsteps, in November 2011 the Malaria **Eradication Scientific Alliance** (MESA) was initiated. MESA tracks R&D projects specifically related to malaria eradication, and provides a collaborative environment for the scientific community working in this area, facilitating the coordination and dissemination of results. The project is funded by the Bill & Melinda Gates Foundation. In this initial phase the Executive Committee, headed by ISGlobal's Director, Pedro L. Alonso, has been established, and the Secretariat will be coordinated by our institute. The first activities to bring together the scientific community and support this project are planned for 2012.

### Major Progress in Immunization and Vaccines

In October, the first results of the RTS,S Phase III clinical trials, the leading malaria vaccine candidate, were published. These results showed that the vaccine offered significant protection for children against severe malaria. Scientists at the Barcelona Centre for International Health Research (CRESIB), the research centre of ISGlobal, and the Manhiça Centre for Health Research (CISM) in Mozambique, have participated throughout the entire vaccine development process.

Beyond Research, ISGlobal, PATH and the Sabin Vaccine Institute have coordinated the Decade of Vaccines Collaboration project. During 2011, work was undertaken to develop a Global Vaccines Action Plan to promote vaccine discovery, development and distribution. To create this document, an international consultation process involving more than 1,100 experts and more than 290 organizations from 140 countries was conducted.

### The Research and Development Agenda for Maternal and Child Health

In 2011, we collaborated with the World Health Organization (WHO) and academic institutions in the coordination of a priority, coordination of a prioritized research agenda for maternal and child health. This agenda represents the contribution of the scientific community to the "United Nations Global Strategy for Women's and Children's Health," launched in response to the limited progress being made in the Millennium Development Goals for infant and maternal health.

Throughout this year, we have also participated in various working meetings of the United Nations and Pan American Health Organization, strengthening our relationships with the WHO, the Partnership for Maternal, Newborn and Child Health and the GAVI Alliance.

In research activity, two large malaria in pregnancy studies have completed their recruitment phases in 2011. The MiPPAD study (alternative drugs for intermittent preventive treatment of malaria in pregnancy) has enrolled more than 5,000 pregnant women volunteers in Africa. On its end, the Pregvax project (*Plasmodium vivax* infection in pregnant women) has finalized recruitment and followup of more than 9,000 pregnant women in five endemic areas.





Progress in the fight against infectious diseases has been one of the major medical achievements of all times. The coming decades will see how unlocking the full potential of vaccines and immunisation will improve global health.



# **Highlights from 2011**

# The Expansion of Our Activities in Chagas Disease

In Spain, one of our most important activities during 2011 has been support to the Catalan Government's National Health Department for the implementation of a Chagas control programme in pregnant women. The objective is to achieve early diagnosis and prevention of mother-to-child transmission and treatment of children infected with Trypanosoma cruzi, the vector that causes the disease. On March 7th, 2011, ISGlobal and CRESIB jointly organized the VII Chagas Workshop for new tools for diagnosis and management of the disease.

In Bolivia, as part of the development of research protocols, and in coordination with Drugs for Neglected Diseases initiative (DNDi), we initiated a Phase II study for a new drug against Chagas disease. In November, we launched recruitment of patients for a new study on biomarkers. At the same time, we expanded assistance and comprehensive care to patients in rural parts of the country, as well as promoted the creation of the Ibero-American Network NHEPACHA (New Tools for the Diagnosis and Evaluation of Patients with Chagas Disease).

# Proposal for a New Development Aid Model for Health

In December 2011, ISGlobal's Think Tank finalized its first study, "Spanish Development Aid and the Challenges in Global Health. A Recipe for Change." In this publication, we highlighted the critical importance of cooperation in health within the Spanish foreign policy agenda, and proposed where to direct a new development aid model in these times of change. Our analysis concluded that Spanish cooperation in health reflects certain shortcomings that affect the current aid system, among which are the lack of a strategic orientation and the difficulty in measuring the impact and evaluating the quality of the aid.

This first study proposes a roadmap of global health measures emphasizing the following:

- a strategic revision of priorities and instruments according to better founded and more transparent criteria
- the creation of a council of global health experts
- a geographic and sectoral emphasis on areas that can guarantee greater impact for resources invested
- the consolidation of a budget base to avoid future budget cuts

# Record Participation in the Tropical Medicine Congress

From October 3rd to 6th, 2011, ISGlobal and CRESIB jointly organized the conference of the Federation of European Societies for Tropical Medicine and International Health, which was held for the first time in Barcelona. The 7th European Congress of Tropical Medicine and International Health had a 30% increase in participation compared to the previous congress, and gave a new impetus to European tropical medicine societies.

The event brought together over 1,600 participants from more than 80 countries to discuss the paradigm shift that has occurred in the last 15 years of tropical medicine for global health. Among the innovations introduced at the conference were areas for bringing R&D closer to health-policy makers and the inclusion of public-private partnerships.

### The Conference in Numbers:

- 1,683 participants from more than 80 countries
- 335 speakers
- 106 total sessions
- 1,125 abstracts
- 25 sponsors





**Neglected tropical** diseases affect over a million people. The allocation of so few resources to the investigation of these diseases is one of the main causes of health disparities around the world.



# **Highlights from 2011**

### New Academic Programme in Global Health

In 2011, ISGlobal's education strategy was defined. We have continued to collaborate in postgraduate, masters and doctoral courses with our partner universities, and will continue coordinating training activities in Mozambique and Morocco.

Highlighted among our new courses is the *Imported Disease:* Clinical approach for adults, offered in November through the Faculty of Medicine at the University of Barcelona (UB). We also participated in the 30th European Tropical Epidemiology Course at the Charité University of Berlin.

In March, we organized the VII Chagas Workshop together with CRESIB, and coordinated with Biocat for the Immigrant health and imported diseases: responding to research challenges seminar.

We prepared proposals for new programmes in 2012 such as: the Master of Global Health (ISGlobal – UB); a course on *Prevention*, *Detection and Management of Arboviral Diseases*, in collaboration with the Centers for Disease Control and Prevention (United States) and CRESIB; *The Science of Eradication: Malaria*, together with the Harvard School of Public Health and The Swiss Tropical Institute; and the summer course at UB, *International Policies and Global Health*.

# Malaria and Dengue Control in Mesoamerica

In the first phase of the Mesoamerican Health Initiative 2015 (SM2015), we provided technical assistance to the Inter-American Development Bank, working in close collaboration with the Ministries of Health for the region, PAHO, and other key stakeholders such as the Global Fund for AIDS, TB and Malaria to develop a strategy and master plans for the vector component, focusing on malaria and dengue.

This strategy aims to implement a proof of concept in different geographical regions (the border between Honduras and Nicaragua and Costa Rica) to demonstrate the feasibility of eliminating malaria in the region. It also includes measures to strengthen national dengue control programmes, especially along the border between Honduras and Guatemala. In collaboration with the most relevant academic and research centres in the region, it also seeks to develop regional training and operational research programmes.

The results of the proof of concept for malaria elimination can be applied to other areas in the world, which will strengthen global initiatives in the fight against these disease.

# Technical Assistance for Malaria in West Africa

Through CRESIB, ISGlobal has played a key role in providing technical assistance to the West African Malaria Initiative, whose objective is to strengthen regional strategies to fight malaria.

In collaboration with academic and prestigious research centres in the area, such as the Malaria Research and Training Centre in Bamako and the University of Ghana, an evaluation of the resources needed for national malaria control programmes in Mali and Ghana has been completed. In addition, we have promoted the initiative through meetings and contacts with key stakeholders, including the Ministries of Health in the other West African countries and the West African Health Organization, and have developed a five-year strategic plan to fight malaria in the region. Further, the Masters in Malariology curriculum has been designed.

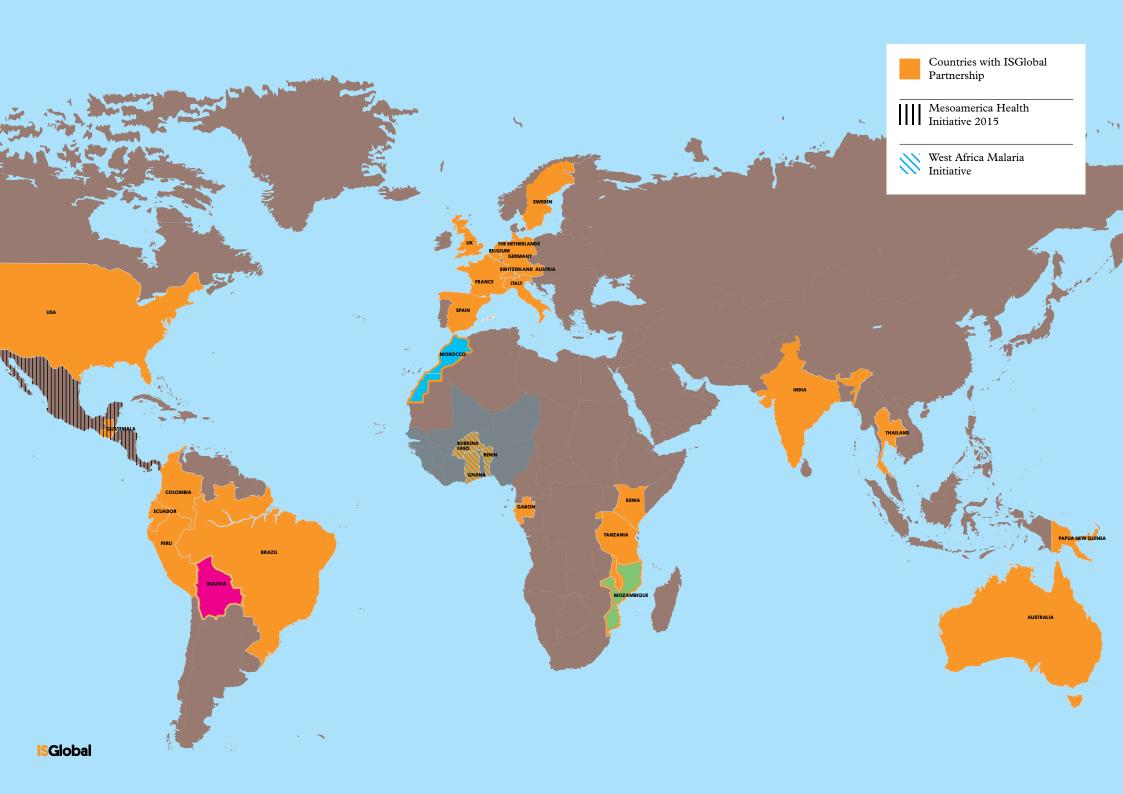
Improving malaria control efforts with a regional approach will allow the standardization of criteria, optimization of resources, and strengthening of the coordination among the national control programmes of the different countries, eventually moving towards malaria elimination in certain areas.





The eradication of smallpox is the greatest achievement ever in the world of medicine, and polio and measles may well be wiped off the earth within the next decade. One of our greatest challenges is to establish the research agenda for the eradication of malaria in the next 30 years.





# **Our Global Presence**

During 2011, we have continued working in the three countries where we have long-term collaborations: Mozambique with CISM and the Manhiça Foundation, Morocco with the Ministry of Health and Children's Hospital at the University Rabat Hospital Centre, and Bolivia with the University of Cochabamba, the non-profit organization CEADES and the Ministry of Health.

### **Bolivia**

Following the development strategy in Bolivia, the Chagas disease platform which combines research, medical attention and training, has integrated new key stakeholders, and expanded our activities in the country.

Research highlights include:

- The first Phase II clinical trial to determine the efficacy and safety of a new drug to treat chronic Chagas disease (in collaboration with DNDi). This study aims to offer an alternative to the scarcity of medicines currently available to treat the disease.
- The start of a study to determine the biomarkers for progression and treatment of Chagas. The study will measure treatment efficacy in chronic patients, one of the major challenges in the treatment of Chagas.

Other activities worth noting are the creation of the Ibero-American NHEPACHA network and the expansion of assistance and comprehensive care to patients with Chagas disease, until now available in Cochabamba city. Expansion has reached other areas of the country such as Tarija and Sucre, in addition to other more rural areas of Cochabamba.

### Morocco

During 2011, we have continued research activities in maternal, child and reproductive health together with the Children's Hospital at the University of Rabat's Hospital Centre.

Research highlights include:

- Completion of recruitment for protocols about the causes of severe pneumonia and diarrhoeal diseases in children under five years of age.
- The development of new protocols to study the aetiology of meningitis caused by *streptococcus*.
- The publication of the first National Report on Causes of Maternal Death in collaboration with the Ministry of Health.

The year 2011 was also a key year for technical assistance for the research laboratory including the provision of new equipment, the creation of a quality control unit and the implementation of standard operating procedures. In addition, training activities included the new edition of the Diploma in Epidemiology, the launch of an e-learning module for cervical cancer prevention, and a training of trainers course.

# Mozambique

CISM has continued to solidify its scientific activities during the 2011 year. Meanwhile, the Manhiça Foundation has established itself as the governing body of the Centre.

Research highlights include:

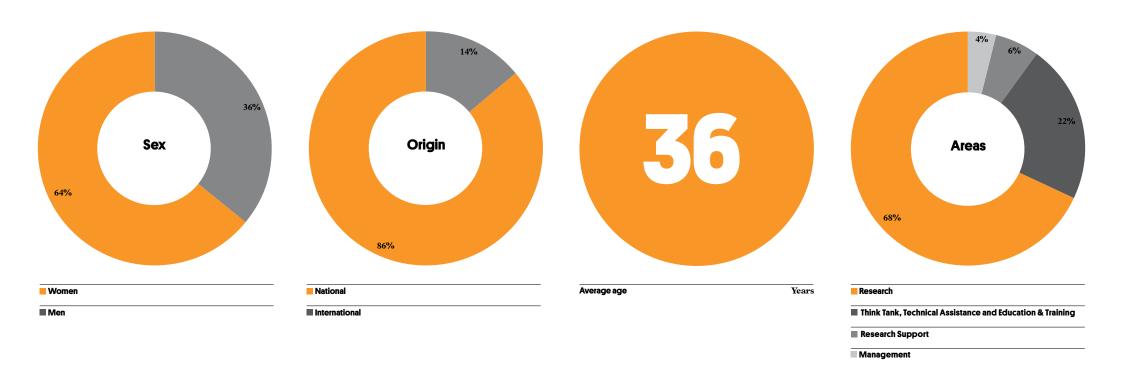
- The publication of results from the leading malaria vaccine candidate (RTS,S).
- The start of a Phase IIb trial of the tuberculosis vaccine.
- The launch of an efficacy study for anti-malaria drugs.
- A study on new drugs for the prevention of malaria in pregnancy, with a recruitment of over 95%, and the start of the first protocols outside Manhica district.
- The evaluation of the efficacy of the Haemophilus influenzae type b (Hib) vaccine after it was introduced into the expanded vaccine programme.

In 2011, CISM organized and hosted the international XI INDEPTH network scientific conference, and promoted the creation of the Institutional Bioethics Committee in Mozambique.



# Facts & Figures 2011

## **Human Resources Total 173**

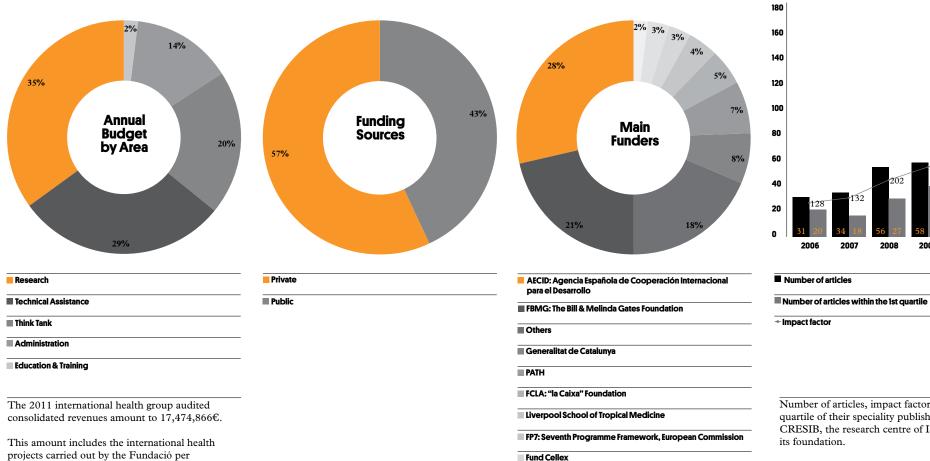






# Facts & Figures 2011

**Publications** Budget Total 17.474.866€



University of Maryland

Number of articles, impact factor and articles in the first quartile of their speciality published by researchers at CRESIB, the research centre of ISGlobal, since

2007

2008

900

700

500

300 200



a la Recerca Biomédica, CRESIB and ISGlobal.

ISGlobal revenues amount to 5,349,844€.

Our mission is to improve global health by using knowledge and science to further human development and serve the needs of the most vulnerable.



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Ministerio de Economía y Competitividad

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National Foundation for the Centers for Disease Control and Prevention

Program for Appropriate Technology in Health

The PATH Malaria Vaccine Initiative

The University of Melbourne

Tres Cantos Open Lab Foundation

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