

**Barcelona  
Institute for  
Global Health**

We Are  
**ISGlobal**



**Quique  
Bassat**  
General Director

**Denise  
Naniche**  
Scientific Director

“In an interdependent world, health is a global good that transcends geographical and political boundaries. Our commitment to improving the health of all people and ensuring greater equity is implemented through the generation, dissemination and translation of scientific knowledge.”

**A team of over 500 people  
from 46 countries**

**Collaborations in more  
than 40 countries**

**Over 600 scientific papers  
published yearly**

**21 patents/software registrations**

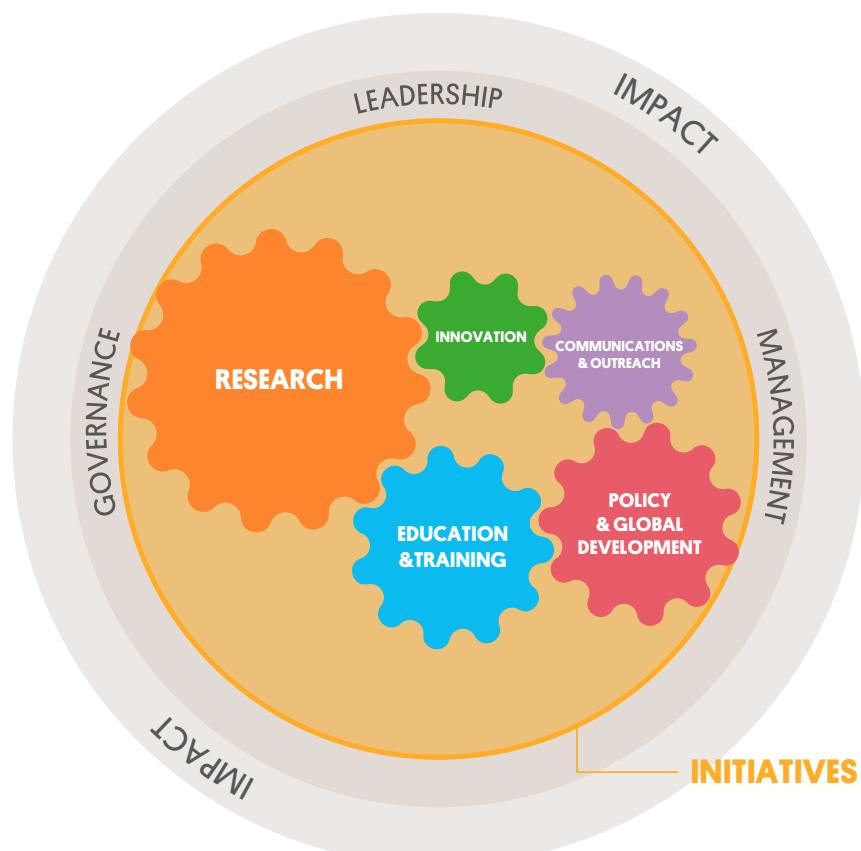
**Over 1,000 professionals  
trained every year**

**10 policy documents  
published per year**

ISGlobal's mission is to promote health equity through excellence in research and the translation and application of knowledge. Our vision is a world in which all people, especially the most vulnerable, can enjoy good health.

## How We Work

The aim of ISGlobal's value chain is to create a virtuous circle of knowledge, action and impact on health.



# **Research and Innovation**

## **Knowledge creation and transfer**



Research is the backbone of ISGlobal's work. We do multidisciplinary and translational research in many fields —ranging from molecular biology to clinical research and public health— with strong focus on frontier methods and technologies (data science, eHealth, health impact assessment). We take an integrative approach to connect infections, non-communicable diseases and climate and the environment for impact.

Our five research programmes are:

### **CLIMATE, AIR POLLUTION, NATURE AND URBAN HEALTH**

Our research aims to strengthen the evidence base in the field of the health effects of climate change and urban exposures, and assess the health co-benefits of climate action. We focus on exposures such as noise, air pollution, temperature and green spaces in outcomes such as premature mortality, cardiovascular and respiratory health and cognitive function. This research is complemented by computational modelling of global climate variations and tipping points and their impact on health. The ultimate objective is to support healthy (urban) living, and forecast and mitigate the health impacts of climate change.

### **ENVIRONMENT AND HEALTH OVER THE LIFECOURSE**

We aim to expand knowledge on the causes and mechanisms of non-communicable diseases (NCDs), focusing on environmental, radiation, occupational, lifestyle, infectious, and genetic risk factors throughout the life course, from prenatal to late adult life. Key outcomes include neurodevelopment, cardiovascular and respiratory health, and cancer. Our ultimate goal is to prevent and control NCDs, in line with the UN SDGs.

### **GLOBAL VIRAL AND BACTERIAL INFECTIONS**

Our research aims to improve understanding of the physiopathology and immunity of viral and bacterial infections in vulnerable populations, developing tools for screening, diagnosis, treatment and clinical management. We focus on tuberculosis, antimicrobial resistant bacteria, HIV, viral hepatitis, emerging or neglected viral infections such as dengue and SARS-CoV-2, infections of global reach such as influenza and cytomegalovirus, and syndromic approaches to infant febrile, diarrhoeal and respiratory infections. Our ultimate goal is to reduce the disease burden of viral and bacterial infections affecting vulnerable populations and/or of global concern.

# Research and Innovation

## Knowledge creation and transfer

### MALARIA AND NEGLECTED PARASITIC DISEASES

We generate scientific knowledge to support evidence-based policy-making at all levels for the reduction of malaria and other parasitic diseases in high-burden areas, and to expand our current scientific understanding of the most relevant parasitic diseases affecting humans, and their host-vector interactions. We focus on malaria, Chagas and neglected tropical parasitic diseases such as soil transmitted helminths and Leishmania with the ultimate goal of advancing towards disease elimination wherever feasible.

### MATERNAL, CHILD AND REPRODUCTIVE HEALTH

We conduct research to develop and validate clinical and community interventions for the most prevalent health problems in women and children living in low- and middle-income countries and support evidence-based policy-making. We focus on barriers to quality of obstetric and child care, on the major causes of maternal and child mortality, namely HIV/AIDS, malaria respiratory and diarrhoeal diseases as well as on maternal immunisation, with the ultimate goal of reducing mortality and improving the health of women and children living in low-and-middle income countries.

In addition, we support three transversal hubs that promote internal and external interdisciplinary collaboration, knowledge sharing and dissemination of research, training and translational needs in key areas.

- **EXPOSOME HUB.** We study multiple environmental hazards (urban, chemical, lifestyle, social) and their combined health effects using innovative tools and advanced methodologies, including exposure assessment, integration of omics markers, data infrastructures, and complex data analysis.
- **IMPLEMENTATION SCIENCE HUB.** We aim to promote the scientific study of methods and strategies that facilitate the uptake of evidence-based health interventions into regular use by practitioners and policy-makers.
- **PREPAREDNESS HUB.** We aim to improve preparedness and promote resilience to health and climate emergencies across borders by bringing together experts in Europe and other regions (including LMICs) and forming strategic alliances.

### INNOVATION

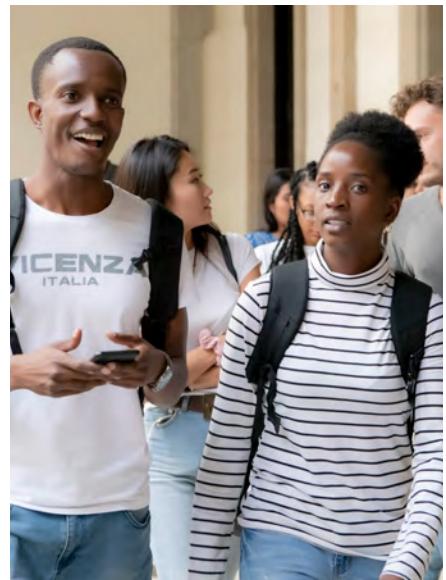
We are working to further the development of technological innovations and to stimulate social innovation and citizen participation. In collaboration with the Hospital Clínic and Parc de Salut Mar in Barcelona, we translate scientific and medical knowledge to the clinical setting to improve the efficacy, equity and efficiency of the health system.

## **Education and Training**

### **Knowledge transmission**

We train the researchers and health professionals of the future. Our programmes foster an inter- and transdisciplinary approach to address the global health problems that affect our planet. Our portfolio includes postgraduate programmes (master and doctoral), specialised short courses, rotations for health professionals and researchers, and programmes designed to strengthen capacities in low and middle-income countries.

ISGlobal is a university research institute affiliated with the University of Barcelona and Pompeu Fabra University.



## **Policy and Global Development**

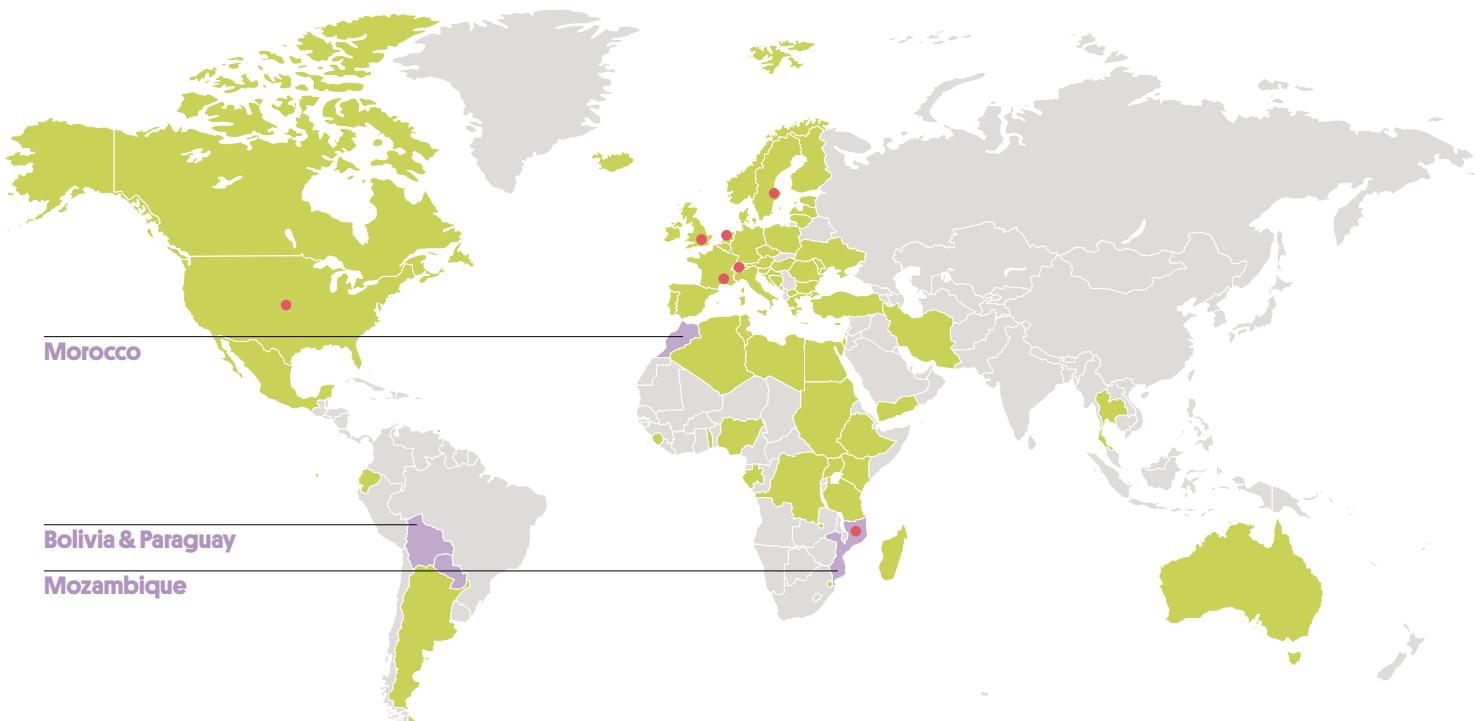
### **Knowledge application**

Moving from evidence to action. Within the framework of the Sustainable Development Goals (SDGs) and based on scientific knowledge and the analysis of health and development strategies, we promote new models of action and changes in the global agenda in order to achieve more effective, equitable, and sustainable interventions.



# Local and Global Presence

*With two campuses in Barcelona—Mar and Clínic—and offices in Madrid, the scope of our work is both global and local. In addition to cooperating with organisations in the surrounding community, we have also forged alliances with the countries where we participate in research projects and built long-standing strategic partnerships in Africa and Latin America.*



■ Countries where ISGlobal coordinates projects and networks

■ Long-term strategic alliances

● Main international institutions with which ISGlobal published scientific articles during 2022

**United Kingdom** University of London, Imperial College London, London School of Hygiene and Tropical Medicine

**France** UDICE French Research Universities, Institut National de la Santé et de la Recherche Médicale (INSERM)

**Mozambique** Manhiça Health Research Centre (CISM)

**USA** Harvard University, University of California System

**The Netherlands** Erasmus University Rotterdam

**Sweden** Karolinska Institutet

**Switzerland** World Health Organization (WHO)

# Long-term Strategic Alliances

## Mozambique

The Manhiça Health Research Centre (CISM) is one of the leading health research centres in Africa. The long-standing collaboration between CISM and ISGlobal, which stretches back more than 25 years, ensures the transfer of knowledge, the development of capacities, and a research portfolio that focusses on some of the most serious threats to health in sub-Saharan Africa.



## Bolivia – Paraguay

The Platform for the Comprehensive Care of Patients with Chagas Disease is an innovative health care model that, since 2009, has combined research and training for health personnel with the direct provision of patient care. In 2020, this collaboration model started to be implemented in Paraguay, with the aim of advancing in the fight against Chagas disease in that country.



## Morocco

For more than a decade, we have worked with the Ministry of Health, academic institutions and health care centres in Morocco to support operational research and work undertaken to develop effective health care policies and to strengthen national capacities.



# Our Initiatives

*Each one of our initiatives focusses on an area in which ISGlobal is at the forefront of international research efforts and explores how scientific knowledge can be applied to achieve an effective impact on global health.*



## Antibiotic Resistance Initiative

Antimicrobial resistance to drugs is a growing problem. It threatens our ability to treat infections, increases the cost of health care, and jeopardises the medical advances achieved in recent decades. To combat the problem, we are contributing to the understanding of the causes and factors involved in antimicrobial resistance, working to support the development of new drugs and promoting the rational use of all antimicrobials.



## Chagas Initiative

Chagas disease is a forgotten and neglected disease. While millions of people worldwide are infected with the parasite, most of them are unaware that they have the disease and do not receive the medical care they need. At ISGlobal, we work to strengthen prevention measures, to improve patient access to diagnosis and treatment, and to contribute to the development of new tools to fight Chagas disease.



## Malaria Elimination Initiative

ISGlobal is known for its long history and achievements in the field of malaria. Our aim with this initiative is to promote strategies specifically designed to increase the number of malaria-free territories around the world.

ISGlobal is a World Health Organisation (WHO) Collaborating Centre for Malaria Control, Elimination and Eradication. We provide support to the WHO on policy-making and guidance on malaria elimination.



## **Maternal, Child and Reproductive Health Initiative**

One of ISGlobal's priorities is to improve the health of the world's most vulnerable populations: women and children in developing countries. To achieve this goal, we are investigating new and better tools for the prevention, diagnosis and treatment of disease as well as providing training and implementing effective interventions in priority areas. These include malaria in pregnancy, the causes of infant and maternal mortality, maternal immunisation, human papillomavirus, emerging diseases such as the Zika virus, and disparities in health equity.



## **Urban Planning, Environment and Health Initiative**

To improve and protect the health of people living in urban environments, we have launched an initiative that focusses on the relationship between urban planning, transportation, and health. We offer evidence-based tools and strategies for meeting the challenges posed by urbanisation: air pollution, noise pollution, the lack of green spaces, the effects of urban heat islands, and sedentary lifestyles.

## Our Distinctiveness



We integrate **research, innovation, knowledge translation and training** to improve health and equity worldwide



We have an **extensive research agenda**



Our **team** is **multidisciplinary**



We foster an **international, creative and talent-focused environment**



We have **close ties to two hospitals and two leading universities**



We have a **solid and plural public-private governance model**



The **scope** of our work is **global and local**

[www.isglobal.org](http://www.isglobal.org)

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