



The Sustainable Sciences Institute (SSI) is an international non-profit non-governmental organization dedicated to developing scientific research capacity in areas of the world with pressing health problems.

OUR MISSION

Global health relies on biomedical scientists and public health workers who can recognize and resolve health problems at the local level. In limited resource settings, these professionals face tremendous challenges including lack of technical training, research tools, financial resources, and up to date scientific information.

SSI works with partners on the ground to help strengthen public health systems at the local level by:

1. Informing and promoting action-led research (research in response to locally identified problems)
2. Identifying and adapting innovative technologies to local conditions
3. Developing a global network of colleagues and mentors
4. Training and supporting professional development including scientific grant writing and manuscript writing

The mission of SSI is to support scientific and public health communities in resource-poor settings to develop sustainable local research and public health systems.

HOW WE GOT STARTED

SSI was founded in September of 1998 in San Francisco, California. In 2004, SSI incorporated in Managua, Nicaragua and in 2011 in Cairo, Egypt. However, SSI really got its start back in 1988, when the Applied Molecular Biology/Appropriate Technology Transfer Program (AMB/ATT) was first conceived.

23 laboratories

supported around the world with donated laboratory equipment, supplies, and reagents

The AMB/ATT program was coordinated by a group of like-minded scientists who developed formed alliances with colleagues in the United States and abroad who were interested in building scientific and public health capability in developing countries. This group of young researchers craved the chance to teach and apply their scientific knowledge in a way that would make a concrete difference in the lives of developing-country residents. For 10 years, they did so through the AMB/ATT program, by donating their time and seeking small grants and individual donations. Through conducting customized training workshops and simplifying technologies onsite, they taught molecular biology-based disease diagnosis, epidemiology, and control of infectious diseases to public health researchers and educators in Nicaragua, Ecuador, Bolivia, and Guatemala. They also channeled hundreds of thousands of dollars' worth of donated laboratory equipment, supplies, and reagents to Latin American researchers and institutions. Importantly, they formed lasting partnerships with many trainees, which have been crucial to sustaining the initial mission over time.

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In 1997, Eva Harris, SSI's current President, was awarded a *MacArthur Genius Fellowship* for this work. Initial and ongoing funding from the Ibrahim El-Hefni Technical Training Foundation and the MacArthur award, along with support from small foundations, family, and friends, led to the founding of SSI a year later.

75 workshops facilitated with 1,789 public health professionals trained from 29 countries in Latin America and Africa

100+ publications in top scientific journals have directly resulted from SSI mentorships

OUR PROGRAMS

Capacity Building and Training

SSI aims to strengthen local scientific capacity, to reduce inequalities in health research, to facilitate knowledge exchange, to build networks of peers, and to support sustainable research efforts through the creation of Centers of Excellence. Since 1998 our capacity building approach has been based on four pillars: Training, Material Aid, Small Grants, and Networking & Consulting. We first train researchers through in-country workshops and support the acquisition of laboratory materials as necessary. After the workshop, participants can apply for a small grant from SSI (depending on available funds) to continue their research using the new skills they learned. During and after the workshop, we help build partnerships, make connections between researchers locally, regionally, and internationally, and provide long-term support to our participants.



We offer workshops on scientific manuscript writing, grant proposal writing, laboratory techniques, diagnosis, and epidemiology, ethical issues in health research, bioinformatics and genome sequence analysis, impact assessment for public health, eHealth and ICT tools, and other specialty topics by demand.

Infectious Disease Research

Research is a major driver of social and technological innovation that can lead to health and equity improvements through a knowledge-to-action process. SSI actively engages in applied research in response to locally identified priority health problems. Our research programs are designed to investigate global health issues often left side-lined by researchers in the “developed world.” Scientists and public health professionals in our Nicaragua and Egypt labs conduct research that is contextually appropriate and locally relevant.

In Egypt, SSI researchers focus on Hepatitis C, a disease with a prevalence of 10% with chronic infection due to poor sanitation practices while vaccinating against schistosomiasis from 1960 to 1980, with a much higher prevalence (>25%) for those over 50-years-old. In Nicaragua, SSI has over 10 years of experience in supporting epidemiology, virology and clinical research on dengue, influenza, and most recently Chikungunya. Dengue is a neglected tropical disease that can lead to death and is endemic in Nicaragua. Influenza until recently was never thought of as a tropical disease, our researchers found a seasonality to a Nicaraguan flu season. Chikungunya is a viral disease that is new to the Americas as of 2013 and is sweeping through Latin America.



Information and Communication Technologies (ICT) for Health

Since 2004 SSI has been working with information and communication technology (ICT) tools to support clinical and epidemiological data management needs for multiple research studies in our Nicaragua office, in collaboration with the Nicaraguan Ministry of Health (MINSA) and various other partner institutions.

The goals of this work are to:

1. identify, analyze, adapt, modify, test and implement low cost *eHealth* solutions – especially open source platforms and software – for priority health problems in limited-resource settings
2. evaluate the impact of *eHealth* and *mHealth* tools in improving information collection, management and use to affect public health outcomes in underserved communities
3. strengthen local capacity in the *eHealth* sector and build partnerships to promote knowledge exchange around sustainable practices



SSI's ICT Program team works in our “Solutions Laboratory” with *eHealth* and *mHealth* tools relevant for primary care and public health needs. Our projects have included work with electronic medical record systems, laboratory information management systems, mobile health tools, decision support dash board systems for infectious disease surveillance and outbreak response, and nominal-level immunization registry tools for national immunization tracking and monitoring systems.