Contributions to Sabin enable us to build momentum in the global fight against disease and to champion efforts to drastically improve the lives of millions across the globe.

Infectious and neglected diseases are inextricably linked to poverty, both as a cause and a symptom. The control and prevention of these diseases improves prospects for sustainable poverty reduction.

Make a gift to Sabin today! Contributions to Sabin enable us to build momentum in the global fight against disease and to champion efforts to drastically improve the lives of millions across the globe.

Sabin Receives €5.9 Million from Netherlands Ministry of Foreign Affairs to Advance Development of Human Hookworm Vaccine

Sabin Vaccine Development has received a four-year, €5.9 million grant from the Netherlands Ministry of Foreign Affairs to support the development of a vaccine to combat human hookworm infection.

Hookworm infection, an intestinal parasitic disease most commonly found in sub-Saharan Africa, Southeast Asia and Latin America, affects an estimated 600 million people. Because hookworm occurs exclusively among the world's poorest people and there is no traditional developed market for a vaccine, the hookworm vaccine is being developed through an international product development partnership (PDP) called Sabin Vaccine Development.

The PDP is comprised of the Sabin Vaccine Institute (Sabin), The George Washington University, Fundação Oswaldo Cruz, James Cook University, the London School of Hygiene and Tropical Medicine, and Instituto Butantan, among other key collaborating organizations.

The hookworm infection vaccine that is under development is a recombinant protein-based vaccine for the prevention of disease due to *Necator americanus*, which accounts for 85% of hookworm cases throughout the world. Children under the age of 10 living in endemic regions will be the principal targets of vaccination because they are at greatest risk of the severe growth, developmental and cognitive impairments that result from the iron-deficiency anemia that is associated with hookworm.

The best current approach to the control of hookworm infection relies on mass drug administration with one of two benzimidazole anthelmintic drugs—albendazole or mebendazole—but data indicate that annual deworming with benzimidazoles may be less effective for hookworm than for other intestinal parasites. In addition, high rates of mebendazole drug failure have been reported and repeated administration of mebendazole in the same population can lead to
Dr. Seble Lemma Frehywot was unanimously appointed to serve on Sabin’s Board of Trustees on December 8, 2010.

Dr. Frehywot currently serves as Assistant Research Professor at The George Washington University departments of Health Policy and Global Health.

Dr. Frehywot was born in Ethiopia and has worked in Asia, Africa and the United States in the fields of medicine, public health, international & national health policy analysis, health policy analysis capacity-building, and health services research and program management.

"We are extremely pleased that Seble has agreed to serve on the Sabin Board of Trustees. Seble's outstanding background in public health and health policy coupled with her vast international experience make her an excellent addition to our board," said Morton P. Hyman, Chairman of Sabin's Board of Trustees. "I look forward to her fruitful contributions to our efforts to reduce needless human suffering from vaccine preventable and neglected tropical diseases around the world."

This generous grant from the Netherlands Ministry of Foreign Affairs will allow the PDP to move ahead with product development, manufacture, a preclinical toxicology study, and clinical testing of our hookworm infection vaccine antigens, all necessary steps to ensure that a low-cost vaccine for human hookworm infection is available and accessible to those who need it most.

Read the press release.

Sabin Celebrates Second Annual World Pneumonia Day

The second annual World Pneumonia Day was held on November 12, 2010 to mobilize efforts to fight a disease that kills more than two million children under age five every year.

PACE members around the world worked again this year to help organize World Pneumonia Day events and conduct outreach in a host of countries. A series of events were organized in Washington DC, including advocacy activities at local metro stations with the pneumoniaFighters!, pneumoniaGrants, take pictures with the PneumoniaFighters!, and to spread the word about pneumonia. PACE Co-Chair Dr. Orin Levine participated in "The Faces of Pneumonia - A Conversation Moderated by Cokie Roberts" event hosted at the Kaiser Foundation and organized by The Global Coalition against Child Pneumonia. The expert panel discussed the global, local and personal toll of pneumonia.

PACE, with support from the International Vaccine Access Center (IVAC), also sponsored a series of small grants to encourage and support global World Pneumonia Day activities. Recipients included organizations in Nepal, Mali, the Philippines and Egypt. Numerous events were organized in China, including a conference on pneumonia for the Chinese Society of Pediatrics and the Chinese Subsociety of Pediatric Pulmonology, announcements in local papers and interviews on local TV, and activities for health workers and pediatricians across the country. Bangladesh once again organized partners, including the Child Health Research Foundation, Bangladesh Paediatric Association and Save the Children, in a series of events to mark World Pneumonia Day 2010.

Global Network Helps World Health Organization Celebrate First Report on Neglected Tropical Diseases (NTDs)

On October 14, 2010, the World Health Organization (WHO) published its first report on

...
Learn more about Sabin's newest trustee.

Save the Date

The 2011 Albert B. Sabin Gold Medal Award ceremony will be held on Wednesday, May 18, 2011 at The George Washington University's City View Room in downtown Washington, DC.

For more information, please read the event listing.

Sabin Celebrates 10th Anniversary of Human Hookworm Vaccine Initiative (HHVI)

This year Sabin's Human Hookworm Vaccine Initiative (HHVI) celebrates its 10-year anniversary. HHVI is the first and only product development partnership aimed at human hookworm vaccine development.

Highlights of the initiative's great success over the past 10 years include taking three single-antigen human hookworm vaccine candidates from bench-top research into process development, two vaccine candidates through pilot neglected tropical diseases (NTDs), entitled "Working to overcome the global impact of Neglected Tropical Diseases." The report details the work necessary to overcome NTDs, challenges for the future, common features of NTDs, new strategies for control and elimination and how control strategies contribute to strengthening health care systems.

The Global Network for Neglected Tropical Diseases held a reception in conjunction with the release of the WHO report at the Council on Foreign Relations on October 20, 2010. A panel discussion was kicked off by Dr. Neeraj Mistry, Managing Director of the Global Network, with additional comments given by Dr. Peter Hotez, Sabin President, and Dr. Francesco Rio, Head of Communications for the WHO's NTD Control Department.

Also in attendance at the Global Network's reception was His Excellency Ambassador Steve Matenje, Republic of Malawi; Dr. Jon Andrus, Deputy Director, Pan American Health Organization; and Dr. Debapriya Dutta, Science and Technology Counselor, Embassy of India.

Read the WHO's full report and report summary. View photos from the Global Network's Reception. Watch coverage of the report launch in Geneva, Switzerland.

Sabin President Dr. Peter Hotez Becomes President of American Society of Tropical Medicine and Hygiene

The American Society of Tropical Medicine and Hygiene announced on November 7, 2010 that Sabin President Dr. Peter Hotez has assumed the role of President of the Society, a worldwide organization of scientists, clinicians and program professionals whose mission is to promote global health through the prevention and control of infectious and other diseases that disproportionately afflict the global poor.

In his role as president, Dr. Hotez will focus on outreach to colleagues from the Society's disease endemic countries, promoting military medicine, and harnessing the energy and talents of the next generation of global health experts.

"It is a true honor and privilege to serve as president of ASTMH for the coming year," said Dr. Hotez. "I look forward to representing this prestigious and vital Society and working toward expanding its reach and tackling some of the most pressing global health challenges."

Read the press release.
production, and one vaccine candidate into clinical trials.

These achievements are attributable to the tremendous commitment of Sabin and the HHVI partners, including Fundação Oswaldo Cruz and Instituto Butantan in Brazil, James Cook University in Australia, the London School of Hygiene and Tropical Medicine in the United Kingdom, the National Institute of Parasitic Diseases, Chinese Center for Disease Control and Prevention in China, and The George Washington University in the United States.

Milestones for the New Year include a two-part Phase I trial of candidate antigen Na-GST-1 in Brazilian adults and process development and pilot production of an additional candidate antigen Na-APR-1. Successful development of the first human hookworm vaccine will not only represent an important public health breakthrough—reducing childhood anemia, delayed physical growth, and impaired cognitive development caused by hookworm infection—but will also represent a key step towards the United Nations Millennium Development Goal for sustainable poverty reduction.

Sabin to Help Shape Global Vaccine Action Plan

Sabin Executive Vice President Dr. Ciro de Quadros will serve on the steering committee of a recently launched "Decade of Vaccines Collaboration" to provide oversight for the development of an action plan that will increase the discovery, development and delivery of lifesaving vaccines to the most vulnerable populations over the next decade.

In addition, Sustainable Immunization Financing (SIF) program Director Dr. Mike McQuestion and Senior Program Officer Dr. Clifford Kamara will serve as advisors for the cost and financing group, which aims to estimate future financial flows and funding gaps to reach vaccine delivery objectives for the coming decade.

The collaboration—launched jointly by the Bill & Melinda Gates Foundation, World Health Organization, UNICEF, and the National Institute of Allergy and Infectious Diseases—follows an announcement by the Bill & Melinda Gates Foundation during the last World Economic Forum in Davos to pledge $10 billion over the next 10 years to help research, develop and deliver vaccines for the world’s poorest countries.

The "Decade of Vaccines Collaboration" will produce a Global Vaccine Action Plan that aims to increase coordination among various stakeholders and identify policy, resource and other gaps that must be addressed to fully realize the potential of vaccines.

Read the press release.

PAHO honors Dr. Ciro de Quadros during 50th Opening Ceremony

In September, Sabin Executive Vice President Dr. Ciro de Quadros received an award from the Pan American Health Organization (PAHO) in recognition of his contributions to public health in the Americas and his involvement in the creation of PAHO’s Revolving Fund for Vaccine Procurement.

Over 47 ministers of health from the Americas gathered for the 50th meeting of PAHO’s Directing Council, which focused on the 30th anniversary of the Revolving Fund for Vaccine Procurement and smallpox eradication. Ministers of Health from the Americas looked at major advances in the region, ranging from the 1994 eradication of polio in the Americas, the elimination of measles transmission in 2000, and the planned elimination of rubella and congenital rubella syndrome (CRS).

Sabin Thanks Dr. Patrick Lammie For Helping End the Neglect

Sabin would like to formally thank Dr. Patrick Lammie for his
exceptional performance as Technical Director of the Global Network for Neglected Tropical Diseases. Dr. Lammie served as Sabin’s lead ambassador to the scientific community to help build a collaborative partnership for the control and elimination of neglected tropical diseases (NTD) throughout the world.

Dr. Lammie has returned to his former position at the Centers of Disease Control and Prevention (CDC) in Atlanta. We are grateful for his contributions, strategic guidance and leadership as Global Network’s Technical Director.

"Were it not for the Revolving Fund, this progress would not have been achieved," said Dr. de Quadros during the meeting. “This was a beacon of innovation. It was the only such fund in the whole United Nations system.” PAHO’s Revolving Fund for Vaccine Procurement began operating in 1979 as part of the Expanded Program on Immunization.

For the past 30 years, the Revolving Fund has been the cooperation mechanism created by the member states of PAHO to maintain the timely provision of quality vaccines at the lowest possible prices. These efforts have had a positive impact, reducing morbidity and mortality from vaccine-preventable diseases and, in general, improving public health for the peoples of the region of the Americas.

Read the press release.
Watch Dr. de Quadros’ commemorative speech.

Launch of Coalition Against Typhoid

On November 8, 2010, Sabin announced that it will serve as the secretariat of the new Coalition against Typhoid (CaT), a global forum of health and immunization experts advocating for increased utilization of typhoid vaccination to prevent childhood enteric fever. The CaT secretariat is funded with support from a three-year, $3 million grant from the Bill & Melinda Gates Foundation.

Typhoid fever is an acute febrile illness, caused by the bacterium Salmonella enterica serovar Typhi (S. Typhi). The disease occurs only in humans and is associated with unsafe food and water and poor sanitation. Antibiotics have been effective in dramatically reducing typhoid fever mortality, but resistance to first-line antimicrobials is widespread and more severe outcomes are becoming commonplace. The usage of available and effective typhoid vaccines could help greatly in the prevention of this disease.

The goal of CaT will be to define the barriers for adoption of typhoid vaccines and the key activities needed to overcome these barriers by expanding available disease burden information, emphasizing the WHO recommendations on the implementation of typhoid vaccines, and increasing the overall priority of typhoid vaccines at international, regional, and country levels. CaT will work to expedite and sustain evidence-based and informed decisions at the global, regional and country levels regarding the use of typhoid vaccines.

Members of CaT currently include the Aga Khan University, Bharat Biotech, Bill & Melinda Gates Foundation, Center for Vaccine Development at the University of Maryland, Crucell, GAVI Alliance, International Vaccine Institute, Novartis Vaccines Institute for Global Health, PATH, Sanofi-Pasteur, UNICEF, the U.S. Centers for Disease Control and Prevention, The Wellcome Trust Sanger Institute, and the World Health Organization.

Read the press release.
immunization trust funds.

During the meeting, Cameroonian parliamentarian Honorable Gaston Komba described to participants how a peer-exchange sponsored by Sabin helped advance the countries innovative financing projects while DR Congo parliamentarian Honorable Gregoire Lusenge Kakule provided participants with an overview of how he and his colleagues learned about the nation’s nearly entirely donor dependent immunization program, and decided to change course.

Learn more about the SIF delegation’s experience at the AFRO Annual Regional Conference on Immunization.

Global Network Partners with Dubai Cares and United Nations Relief and Works Agency for Deworming Campaign in Gaza and the West Bank

In November, the Global Network announced a collaboration with Dubai Cares and the United Nations Relief and Works Agency (UNRWA) to deworm 250,000 children during a year-long campaign targeting UNRWA students in Gaza and the West Bank.

Intestinal worms are among the neglected tropical diseases (NTDs)

Sustainable Immunization Financing (SIF) Program Hosts Third Asian Sub-Regional Symposium for Parliamentarians

On October 21-22, 2010, the National Assembly of the Kingdom of Cambodia, in collaboration with Sabin, organized the “Third Sub-Regional Symposium for Parliamentarians on Sustainable Immunization Financing” in Phnom Penh, Cambodia. The Phnom Penh meeting follows successful symposia in Kathmandu, Nepal and Colombo, Sri Lanka.

Eighty-seven participants, including parliamentarians and officials from the ministry of health and finance from Cambodia, Nepal and Sri Lanka; as well as representatives from the World Bank, United Nations Development Programme and UNICEF, attended the two day meeting. The meeting featured a policy and scientific session, a panel discussion, and a breakout session where participants were placed in small working groups and asked to address the theme of “budget preparation and oversight” or “legislating for immunization and health.”

The symposium concluded with the adoption of the “Phnom Penh Declaration,” which calls for the respective ministries of health and finance of each country to join parliamentarians in enhancing the national immunization budget and proposing concrete steps for the prevention of vaccine preventable diseases, among other things.

Read the final report. View photos from the symposium.

Sabin Receives Grant to Lead Global Effort to Reduce Rubella and Congenital Rubella Syndrome (CRS) Burden through Vaccination

Sabin has received a grant to launch a three-year initiative encompassing education and awareness activities for the prevention and control of rubella and congenital rubella syndrome (CRS) globally. While rubella itself is a disease that often causes only mild illness, a significant burden of the disease is associated with rubella virus infection during the first trimester of pregnancy.
Known as congenital rubella syndrome, CRS causes significant hearing and visual impairment and mental retardation in countries where rubella infection is not yet controlled or eliminated. According to the World Health Organization (WHO), as of 2008, only 40% of infants had received rubella vaccines through national immunization programs.

The annual cost of treating an infant with CRS over a lifetime is approximately $63,000 in the Caribbean and more than $200,000 in the United States. Asia and Africa are the largest regions that have yet to introduce the vaccine. In both regions, the economic burden and rate of disease is poorly documented, but the WHO estimates that in Southeast Asia alone approximately 46,600 infants per year are born with CRS. Only a mean of 13 cases are reported each year, however, revealing the work that needs to be done to improve both surveillance of and vaccination for rubella.

Read the press release.

Spain Royal National Academy of Medicine Prize Given to Dr. Ciro de Quadros

In October, Sabin Executive Vice President Dr. Ciro de Quadros received the Premio Carlos IV award for Research in Preventive Medicine and Public Health from the Royal National Academy of Medicine (RANM) during a ceremony chaired by HRH Infanta Margarita.

The Premio Carlos IV for Research in Public Health is awarded yearly by RANM to promote activities related to improving public health and progress of biomedical research in general.

Dr. de Quadros was honored for his pioneering work with smallpox surveillance and containment, and his leadership in the eradication of measles and polio from the Americas. 2010 marked the 30th anniversary of smallpox eradication, a key event that King Charles IV supported through the Balmis expedition. In the 19th century, Dr. Francisco Javier de Balmis toured the world and vaccinated children in all of the Spanish colonies with a smallpox vaccine.

RANM President Manuel Diaz-Rubio stated previously of Dr. de Quadros that, "his contributions to the prevention and control of smallpox worldwide and promoting international immunization programs in developing countries have been crucial to the jury's decision to make him worthy of this distinction."

Read the press release.
Read Dr. de Quadros' acceptance remarks.

Regional Health Officials Meet to Address Leading Killers of Children in the Eastern Mediterranean
vaccine that could expedite eradication of the disease and to give his insights on how increased vaccination will reduce the number of children who die from pneumonia.

PACE Council Member Dr. Fred Were writes about the significance of Kenya introducing pneumococcal vaccines into its national immunization schedule.

Dr. Hotez makes a case for improving global security through increased funding to control and eliminate neglected tropical diseases.

Recent Scientific Articles

Since the last issue of The Sabin Report, the New England Journal of Medicine released "A national cholera vaccine stockpile—-a new humanitarian and diplomatic resource," co-authored by Sabin President Dr. Peter Hotez, Dr. Matthew Waldor of Harvard Medical School and the Howard Hughes Medical Institute, and Dr. John Clemens, Director-General of the International Vaccine Institute.

Drs. Hotez, Jeffrey M. Bethony, David Diemert, Mark Pearson and Alex Loukas co-authored "Developing vaccines to combat hookworm infection and intestinal schistosomiasis" for the November issue of Nature Reviews Microbiology.


The symposium was the third in a series of regional meetings that began in 2007 to increase access to life-saving vaccines that protect children from the world's most deadly diseases. Dr. Najwa Khuri-Bulos, a PACE member and head of the Division of Infectious Disease at Jordan University Hospital, organized the event.

In Jordan, Iraq, Lebanon and Syria combined, more than 15,000 children under age five die each year from pneumonia and diarrheal disease, creating a significant disease burden that accounts for almost a third (28 percent) of all child deaths in these four countries alone.

Worldwide, pneumonia and diarrheal disease remain the leading killers of children under age five. While wealthy nations in the region can afford to regularly update vaccination programs and poor countries can apply for international financial assistance, middle-income countries often struggle to introduce new vaccines into their national immunizations programs. Many lower-income families struggle to afford vaccination, and the number of doses Ministries of Health can purchase for use in government-funded vaccination programs is limited. As a result many children are not vaccinated against the leading causes of pneumonia and diarrheal disease, leaving thousands of children at risk for infection, illness and death.

The symposium brought together a committed core of scientists, doctors and Ministry officials from Jordan, Syria, Lebanon, Palestine and Iraq to review progress on vaccine introduction, highlight the need for pneumococcal and rotavirus vaccines and seek high-level consideration of approaches to joint vaccine procurement in the Eastern Mediterranean.

Read the press release.

Sabin President Dr. Peter Hotez Provides Testimony at FDA Hearing on Neglected Tropical Diseases (NTDs)

In testimony presented to the U.S. Federal Drug Administration's (FDA) public hearing on ways to advance development of drugs, vaccines and other medical products used in the prevention, treatment, and diagnosis of neglected tropical diseases (NTDs), Sabin President Dr. Peter Hotez advised the agency to help product development partnerships (PDPs) navigate
In addition, Sabin Vaccine Development scientists including Drs. Hotez, Diemert, Bethony, Amar R. Jariwala, Maria E. Bottazzi et al. authored "Potency testing for the experimental Na-GST-1 hookworm vaccine" for Expert Review of Vaccines.

"The FDA can help enormously by increasing its guidance and mentorship to PDPs to help them meet the needs of national regulatory authorities and the FDA as well as finding ways to operationalize more efficiently," said Dr. Hotez.

"These organizations would also welcome increased financial support for NTD product development and testing, and an expansion of FDA's Orphan Grants Program in the Office of Orphan Products Development," he continued.

The public hearing, held in September, was scheduled to provide advocates for patients with NTDs, academics, pharmaceutical companies and others an opportunity to present their views to the FDA review group. The group will then make recommendations to the Commissioner regarding appropriate preclinical studies, trial design, regulatory approaches, and optimal solutions to prevent, diagnose, and treat NTDs.

New Faces at Sabin Vaccine Institute

Six new staff have joined the Sabin Vaccine Institute since the last issue of The Sabin Report was released:

Ted Miles, Program Coordinator, Sabin Vaccine Development
Sofia Redford, Program Coordinator, Vaccine Advocacy and Education
Christopher B. Nelson, Director of the Coalition Against Typhoid (CaT) Secretariat
Jacqueline Mills, Program Coordinator, CaT Secretariat
Shannon Grahek, Senior Program Officer, Sabin Vaccine Development
Valerie Fitton-Kane, Senior Resource Development Officer, Global Network for Neglected Tropical Diseases