The strength of the past
The innovation of today
The commitment to tomorrow
IMPACT AND CHANGE
2013 ANNUAL REPORT

The strength of the past
The innovation of today
The commitment to tomorrow
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Dr Hiroki Nakatani
TDR Special Programme Coordinator and Assistant Director-General, HIV/AIDS, Tuberculosis, Malaria and Neglected Tropical Diseases (HTM), World Health Organization

TDR has been an important new member within the organizational cluster I lead that includes the departments of HIV/AIDS, TB, malaria, and the neglected tropical diseases. This move, which occurred in April of 2012, has been strengthening the ongoing loop of research informing practice and practice informing research.

One collaboration I’d like to point out is the SORT IT operational research training model to work with WHO regional and country offices and ministries of health to identify the system challenges, train national public health officers to work with their data and develop solutions. The TDR-led group has been very productive. More than 118 research studies were done in 43 countries addressing critical health issues like multidrug-resistant tuberculosis, malaria, neglected tropical diseases, maternal and child health and HIV/AIDS.

As this is being published, I would also like to call attention to an event that occurred in early 2014 which was the result of much work during 2013. This is the annual World Health Day at WHO, which is designed to bring worldwide focus to a specific health issue. This year it was on vector-borne diseases transmitted by insects, like malaria, dengue and Chagas disease.

TDR worked very closely with WHO to prepare for this, which included the development of the technical report that is used worldwide. TDR-supported research was also featured in both web stories and videos, showing how an environmental and community approach can reduce both disease transmission and insecticide use in Latin American countries.

I’d like to reinforce how pivotal this year has been for TDR – important structural changes and a new, two-year workplan were finalized. There is much to celebrate, and next year, this report will provide many stories of impact and success from TDR’s celebration of its 40 year history that continues throughout 2014.
I have been the chair of the Joint Coordinating Board (JCB) for the past three years, during which time we have seen many changes. I am delighted that the last official report of my term is so positive; it reflects the internal energy and dynamism that is driving TDR forward and has helped to reassert its position as an important player and partner in global health research. As you will see from this 2013 annual report, TDR has ended the biennium in strong financial shape, the staff is highly motivated and there is an innovative workplan in place that anticipates tomorrow’s needs.

There is a whole range of grant and training support schemes that can be tailored to the specific needs of researchers from low- and middle-income countries. Just coming out is a programme to identify solutions to close the gender gap in science. TDR is not only committed to the concept of gender and social equity, it is working to find solutions to these long-standing issues.

New research is building on areas where TDR has a long tradition of success, for example, research to better understand the impact of climate change on vector-borne diseases in Africa and identify useful adaptation methods.

This past year has been a time of incredible challenges and also opportunities. Under John Reeder’s leadership, I have seen the Programme sharpen its focus and accomplish much, with a very tight budget. TDR is bringing together the right partners and teams to make an impact much beyond what just one group can do – sometimes this is at the international level, sometimes the regional level, and sometimes the country level, but it is always designed with the goal of improving healthcare and access to this healthcare for the poorest and most vulnerable.
Thank you to the TDR contributors providing overall support in 2013* 

* Listed in order of level of contribution

Thank you to the TDR contributors providing specific project support in 2013*
Dr John Reeder
TDR Director

**TRANSFORMATION** – If there is one word that would sum up the last year and the completion of the 2012-13 biennium, transformation would be it for me.

We have physically moved our offices to be closer to the WHO control departments with whom we work most closely.

We have also changed the way we work … to do more, do it better and at less cost.

We planned to end this year in the black, with a fully funded and expanded workplan for 2014-15. We did that, and then went on to improve further so that we could start funding new types of grants we call impact grants even earlier than planned. After receiving a remarkable 458 applications from 72 different countries around the world, we could see that we were offering something valuable so this programme is being expanded.

We checked with our key stakeholders about what they valued the most and where they saw room for improvement. I was pleased to see that of the more than 200 people who replied to the survey, 78% said confidence in TDR had been consistently high, increased or consistently moderate during the past two years, and 82% speak positively about the programme.

By the time this report is published, we are already well into 2014 and the celebration of 40 years of impact. It is so rewarding for me to see how a Programme like TDR has the flexibility to adapt to the changing needs of people living in these poor and remote areas. Because in the end, it is about people – both those who want to help, and those who need to be helped. TDR is making a difference where it counts, thanks to our contributors and the many organizations around the world who work with us.
MAJOR ACHIEVEMENTS IN 2013

Making an impact as we approach the target date for achieving the Millennium Development Goals
Preventing major infectious diseases

TDR is working with 35 countries to help them develop better approaches to preventing at least one of these four major diseases – malaria, dengue, African trypanosomiasis (sleeping sickness) and Chagas disease. The work is being done by understanding how the disease is transmitted, and identifying practices that can prevent this transmission.

Malaria Partnerships Identify New Strategies to Prevent Transmission

Three African countries – Cameroon, Kenya and Mali – now have new approaches to preventing malaria transmission. Not only is there more knowledge on the local mosquitoes that carry the malaria parasite, but new partnerships and collaborations, particularly with the national malaria control programmes in the countries and donor agencies that are helping establish integrated vector control and insecticide resistance management strategies.

Dengue Experts Develop State-of-the-Art Surveillance

Ten Latin American and Asian countries have developed new ways to detect dengue outbreaks at an early stage. Using systematic literature reviews and country case studies, they’ve been identifying pragmatic outbreak definitions, potential alarm signals, contingency plans and response strategies.

Chagas Disease Infestations and Re-infestations Prevented

Research studies in 6 Latin American countries have identified how some triatomine bugs that transmit Chagas disease are managing to survive insecticide spraying of house walls and go on to re-infest homes. The evidence is helpful for country control programmes to adjust their practices.

African Trypanosomiasis

There is new evidence on how to make the traps of the flies that transmit African trypanosomiasis, otherwise known as sleeping sickness, more powerful. This has been achieved through research that standardized the traps across the continent.

New and Improved Treatments

Three R&D projects and five clinical trials were brought to completion this year. These activities cover a period of up to 10 years and enrolled over 27,000 patients, covering malaria, tuberculosis, Chagas disease, onchocerciasis, and human African trypanosomiasis.

Visceral Leishmaniasis Elimination

Policy changes in Bangladesh and Nepal have been informed by evidence generated from clinical trials of the efficacy and safety of multiple-dose and single-dose regimens of visceral leishmaniasis with liposomal Amphotericin B (LAMB). Single-dose LAMB has now been adopted as first line treatment in Bangladesh and an extensive programme has been launched to make it available in the most endemic Upazillas.
SEVERE MALARIA

A significant step towards the availability of rectal artesunate for pre-referral treatment of severe malaria was made, with an agreement signed with Medicines for Malaria Venture (MMV) that will allow pharmaceutical companies to apply for WHO pre-qualification, as well as another agreement with a private company to submit for registration by national drug regulatory authorities.

TUBERCULOSIS

The TB treatment shortening trial (4-month gatifloxacin-containing regimen vs standard 6-month regimen) did not show that the shortened treatment was non-inferior to the current standard within set margins. The treatment is safe and well-tolerated, which makes gatifloxacin a potential addition to the armoury of treatments for multidrug-resistant TB. The project provided significant research strengthening within the 3 African countries that will have long-term impact.

ONCHOCERCIASIS

Efficacy and safety data on a potential new treatment of moxidectin were obtained from the phase 3 clinical trial. A single dose of 8 mg moxidectin reduced the levels of skin infections more than a single standard dose of ivermectin and for a longer period. The drug can be regarded as safe with a superior efficacy that could be advantageous to onchocerciasis control programmes as they move from control of onchocerciasis as a public health problem to elimination of *O. volvulus* transmission where feasible. Discussions are underway for a not-for-profit company to register the product.

Helping countries identify and solve critical health system bottlenecks

THE IMPLEMENTATION RESEARCH TOOLKIT

It was piloted in three workshops in Bangladesh, Botswana and Ghana. This is a unique and highly requested new aid to support a broader approach to national and regional system challenges.

THE SORT IT PROGRAMME

It is another TDR support to identify and address health system bottlenecks. Ten structured research and training programmes were completed or ongoing in 2013, resulting in 118 research studies/trainees in 43 countries addressing critical health issues like multidrug-resistant tuberculosis, malaria, neglected tropical diseases, maternal and child health and HIV. The areas for research are developed in close cooperation with the World Health Organization’s regional offices, where staff in ministry of health offices identify the health system challenges and then work closely with the WHO office to develop and complete a research project within a year in order to address more quickly their constraints.

Strengthening research capacity where it’s needed most

TRAINING AND RESEARCH GRANTS BASED ON THE NEEDS OF COUNTRIES

- 26 short-term IMPACT grants to 19 countries.
- 13 Career Development Fellows learning clinical product development practices.
- 8 regional grants awarded to 6 African countries for national research priorities.
- 4 Regional Training Centres (RTC) in good health research practices are running in Colombia, Kazakhstan, Indonesia and the Philippines. These centres provide a panel of skill-building courses for bioethics, good health research practices, project planning, management and evaluation, and result dissemination within their training programmes.
A TDR Career development fellow profile: Amadou Seck Dakar, Senegal

Pioneering improvements in TB data management in Senegal

A thirst to dig deeper, combined with a passion for statistics and numbers, first inspired Amadou Seck to study computer science and later led him to his current role at the National Tuberculosis (TB) Control Programme in Dakar, Senegal, where he is responsible for data management. And just one sobering statistic is enough to sustain him on his mission: according to the latest World Health Organization figures, approximately 30,000 Senegalese have TB.

Those motivations took him to Luxembourg in 2013, where he was placed for 9 months as a TDR Career Development Fellow (CDF) at CRP-Santé, a leading public research centre for health. Now back home in Senegal, Seck is eager to steer improvements in good clinical data management practices and play an important role in fighting TB by strengthening national clinical research capacity.

“Amadou Seck is one of the first non-clinician specialists to benefit from the programme”, says Pascal Launois, manager of the CDF at TDR. “Analysis of health research priorities highlighted a knowledge gap in data management and Mr Seck’s successful application to the programme responded to a real need, in Senegal, to strengthen local data management capacity so that clinical trial data could be analyzed at country level”.

“Winning a place on the Career Development Fellowship programme was a great opportunity for me, professionally and personally”, says Seck. “It has enabled me to gain more experience and to get international exposure to leading edge data management practices that I can now apply and pass on in my work in Senegal”.

Since 2009, Seck has worked on high-profile international collaborative research projects in Senegal, such as the multi-country Phase III clinical trial of a new anti-tuberculosis drug regimen and, currently, RAFA, an EU-funded research project on TB/HIV. Having already worked with the data management team at CRP-Santé, where the central project database for the Phase III clinical trial is based, it was a logical step to take up the placement in Luxembourg. The fellowship allowed Seck to gain invaluable hands-on experience and develop a network of new contacts. He is using both these connections and his new knowledge to set up a top quality data management structure in Dakar that will enable the TB control programme to conduct its own studies and trials, in line with international standards.

CONNECTING LUXEMBOURG AND DAKAR

During the programme, Seck spent 2, three-month blocks at CRP-Santé’s centre of competences in methodology and statistics in Luxembourg, as well as a three-month period in Senegal in the middle of the placement. This enabled him to remain connected professionally to his base in Dakar, ensured smooth continuity of data management between the two countries during the critical data analysis phase of the Phase III clinical trial, and enabled stronger relations to be built between the institutions involved.
“In a very short time, Amadou became a fully integrated member of our team and is a great example of the effectiveness of the programme and our centre’s ability to provide valuable hands-on training in statistics and data management”, says Dr Michel Vaillant, Seck’s supervisor and mentor in Luxembourg.

TRANSFERRING KNOWLEDGE AND EXPERTISE

During his placement, Seck worked on data management for the Phase III clinical trial for Senegal including managing data cleaning from the central data management site in Luxembourg and liaising with the local site in Senegal. He gained experience using specialist global data management software (Clinsight) and interfacing with the SAS system for specific programming tasks. He also used open-access software for data management and will receive further support from CRP-Santé to put such a system in place in Senegal. This will help Seck to establish a specialized unit to handle data management for clinical trials locally. He also wants to take advantage of the networking opportunities he was exposed to through the fellowship programme, such as attending the International Year of Statistics Conference 2013, in Luxembourg, and the TDR CDF fellows’ meeting in Geneva in 2014.

In Dakar, Seck works as part of a small team including a medical doctor, monitoring and data entry experts and a finance officer, where they are responsible for the country control programme as well as special international clinical research projects. Seck remains grateful for the support of his supervisor, Dr Marie Sarr, Head of Senegal’s National TB Control Programme, who originally recommended he apply for the CDF scheme.

“The CDF programme opens a door for us to develop and promote our expertise,” says Sarr. “Amadou is already implementing important changes and introducing new procedures for working as well as encouraging other team members to understand and respect new data management methods.”

Dr Marie Sarr, Head of Senegal’s National TB Control Programme
Impact profile: eliminating visceral leishmaniasis through long-term partnerships

Bangladesh beats a deadly scourge

By combining active case management and vector control strategies informed by TDR-supported research, the country is on track to eliminate visceral leishmaniasis by 2015. In 2005, the governments of Bangladesh, India and Nepal signed a Memorandum of Understanding to reduce the burden of visceral leishmaniasis (VL) from about 300 cases per 100 000 to less than 10 in each of the three countries by 2015.

The world’s second biggest parasitic killer after malaria, VL is a worthy target. Also known as kala-azar, the disease occurs predominantly among the poorest of the poor, causing an estimated 59 000 deaths and 2.4 million disability-adjusted life years (DALYs) per year. Close to 70 percent of that global burden occurs on the Indian subcontinent, where more than 186 million people remain at risk of infection. But it’s there too that VL’s epidemiological profile makes it amenable to elimination, says Dr Byron Arana, who worked for TDR and is now at the Drugs for Neglected Diseases initiative (DNDi). “On the Indian subcontinent, several drugs have been shown to be very effective, the only vector involved is susceptible to insecticides, and the only reservoir is humans.”

That’s in stark contrast, he says, to the situation in Brazil, where VL is zoonotic—dogs are the main reservoirs—multiple vectors are involved, and the drugs are less effective.

WHO AND TDR SUPPORT FOR THE 3 MAIN ELIMINATION COMPONENTS

Bangladesh, in particular, has made large strides toward VL elimination, the result of a collaborative undertaking guided by TDR-generated research and made possible by technical and financial support from the WHO’s Department of Control of Neglected Tropical Diseases (WHO NTD). Working with those partners, the government of Bangladesh has reduced the incidence of VL to fewer than 1900 cases per year, down from more than 9 000 less than a decade ago, and is on pace to eliminate VL a year ahead of the target date.

“The programme has three main components,” says Prof Be-Nazir Ahmed, Director of the Directorate General of Health Services in the Ministry of Health in Bangladesh. These cover diagnostics, treatment, and managing the sandfly vector.

“First, diagnosis can be done very easily with rK39,” a rapid diagnostic test (RDT) that has emerged as a reliable alternative to conventional methods. “Before, diagnosis was limited to the laboratory,” says Ahmed, “but the RDT can be performed in endemic areas at the sub-district and even the community level.”

“Based on our study, the government of Bangladesh decided to adopt single-dose liposomal amphotericin B as a first line drug for VL.”

Dinesh Mondal
**RESEARCH ESTABLISHES AN EASIER MEDICAL TREATMENT**

Equally important, says Prof Be-Nazir Ahmed, is improved access to easier and less painful treatment regimens for patients with kala-azar and post kala-azar dermal leishmaniasis (PKDL). “For 60 years, the only treatment for VL in Bangladesh was sodium stibogluconate,” which requires 30 days of painful daily intramuscular injections and carries the risk of severe side effects. “The course was very long, compliance was poor, and 15% of patients died due to the drug itself,” says Ahmed.

When Bangladesh launched the National Kala-azar Elimination Program (NKEP) in 2005, liposomal amphotericin B, a safe and effective alternative sold by the American drug company Gilead, was prohibitively expensive for use in national control programmes. But in 2007, Gilead announced a price reduction of 90% for all low- and middle-income countries where VL is endemic, and WHO NTD proposed to the government of Bangladesh that it use the drug as a first-line treatment for VL, modifying its treatment policy in line with the recommendation of the WHO Expert Committee on the Control of VL for the Indian subcontinent.

Four randomized controlled trials of this drug had demonstrated its high safety and efficacy profile for the treatment of VL in controlled conditions. But there was little evidence showing that the drug could be effectively distributed through the kind of primary health care centers where most VL patients seek care. “So we decided with the Ministry of Health to conduct a feasibility study in Bangladesh,” says Dr Jean Jannin, coordinator of innovative and intensified disease management at WHO’s Neglected Tropical Diseases department. “We provided the funding and drugs for the single-dose study, and we requested that TDR conduct it.”

That study, led by principal investigator Dr Dinesh Mondal, a senior scientist at the International Center for Diarrhoeal Disease Research, Bangladesh (icddr,b) and a TDR grantee, showed that treatment of VL with a single intravenous infusion of the liposomal amphotericin B could indeed be administered at the primary health-care level in a remote, rural part of the country. As Mondal and colleagues reported in The Lancet Global Health, the final cure rate at 6 months post treatment with 10 mg/kg liposomal amphotericin B was 97% with no serious side effects and no patients needing referral to the tertiary hospital.

“Based on our study, the government of Bangladesh decided to adopt single-dose liposomal amphotericin B as a first line drug for VL,” says Mondal. “And so far hundreds of patients have been treated with no cases of adverse events.” To support the country’s efforts, WHO has been donating drugs, and the United Kingdom’s Department for International Development (DFID) has provided support for training, distribution and active case detection.

**CONTROLLING THE SANDFLY VECTOR**

In addition to new drugs and diagnostics, integrated vector management has also been key to Bangladesh’s success. A recent study conducted by Mondal and TDR consultants Axel Kroeger and Greg Matlashewski showed that a community-based intervention to impregnate existing bed nets with a slow-release insecticide significantly reduced VL incidence in VL-endemic areas of the country, leading to that intervention’s adoption by the Bangladeshi government. And according to Ahmed, “indoor residual spraying with deltamethrin has also been highly effective in reducing the concentration of sandflies per household.”

Together, he says, these three components, along with the commitment shown by everyone from the programme director on down to field-level workers, has resulted in a 90% reduction of kala-azar over the past three years. “They have really been working hard,” says Ahmed. “And because of this, we expect elimination by 2015.”

**“The government of Bangladesh has reduced the incidence of VL to fewer than 1900 cases per year, down from more than 9 000 less than a decade ago, and is on pace to eliminate VL a year ahead of the target date.”**

Be-Nazir Ahmed, Director of the Directorate General of Health Services, Ministry of Health, Bangladesh
Increasing our focus on:
- Expanding access to those who need it most
- Strengthening research capacity where it’s needed
A new workplan, and a renewed commitment to research and training that helps countries expand access to care to everyone in need.

Preventing major infectious diseases

ADDRESSING THE IMPACT OF CLIMATE CHANGE

Research is ongoing in 7 African countries at risk of greater transmission of vector-borne diseases like malaria, schistosomiasis and African trypanosomiasis due to climate and environmental changes. The goal is to identify ways to increase resilience and adaptation methods in these countries.

PROVIDING EVIDENCE FOR DENGUE MANAGEMENT

A number of TDR projects are providing evidence for better guidelines in surveillance, management and outbreaks. Results are being published and discussed with government officials and control officers. Further studies are being done to analyse the cost effectiveness of early response and to test dengue contingency planning.

SUPPORTING LATIN AMERICAN COUNTRIES TO PREVENT DENGUE AND CHAGAS DISEASE

For the past decade, TDR has been investigating how best to involve communities to incorporate an environmental approach to prevent dengue and Chagas disease. An active community of practice is in place in eight sites in Latin America. The site-specific results will be published in 2014 in a special issue of a scientific journal, and the work in five of the countries is being profiled through videos and profiles of the researchers involved, starting with the 7 April World Health Day on vectors. The research will be expanded in several countries through close collaboration with control services.

HELPING COUNTRIES DEVELOP REGULATORY PRINCIPLES FOR GENETICALLY MODIFIED MOSQUITOES

Countries are exploring the possibilities of using genetically modified mosquitoes for malaria or dengue control. A guidance framework produced by TDR, in collaboration with the USA Foundation for the National Institutes of Health (FNIH) and worldwide experts, will be a valuable tool. It addresses ethical, legal, social and regulatory issues facing countries, and will be published in 2014.
ELIMINATING VISCERAL LEISHMANIASIS (VL)

TDR is focused on the goal of eliminating VL in Bangladesh, India and Nepal. Current work is on improving vector control (analysing insecticide spraying practices in different types of community set-ups, and the effectiveness of a new durable wall lining in the homes where it would be used) and case identification.

SUPPORTING NEW TOOLS FOR SLEEPING SICKNESS: UNRAVELING THE TSETSE GENOME

Two major publications – Science and PLoS Neglected Tropical Diseases, are publishing articles in 2014 about the completion of the genome sequence of the tsetse fly (Glossina morsitans), the carrier of the parasite that causes African trypanosomiasis (sleeping sickness). The International Glossina Genome Initiative (IGGI) consortium was established in 2004 with TDR support to undertake the project, which was the first of this type in which African countries were intimately involved from the very beginning. The information can be used to identify genetic markers and better understand things like the fly's immune response to parasites and pathogens and what genes are involved in host-seeking behavior. And that knowledge can then be used to enhance trapping systems and other control methods.

EVALUATING THE IMPACT OF INSECTICIDE RESISTANCE MECHANISMS ON MALARIA CONTROL

Studies are assessing the ways mosquitoes develop resistance to insecticides, establishing the links between these mechanisms and how they prevent successful mosquito control measures.

Helping countries identify and solve critical health system bottlenecks

STRENGTHENING COMMUNITY CARE MODELS

Numerous projects are underway to strengthen the evidence base for community-based care. These include a study to identify incentives that work best for community health workers and a series of systematic reviews on the use of community health workers who provide an integrated package of services addressing fever, not just a specific disease. There is also a meta-analysis to identify best practices for Integrated Community Case Management (iCCM) of childhood fevers in remote health care settings. COSMIC is a multi-country study examining whether community care can reduce the incidence of malaria among pregnant women.

INCREASING ACCESS TO HEALTH PRODUCTS THROUGH SOCIAL ENTREPRENEURSHIP

TDR is assessing the utility of applying social enterprise principles to various aspects of infectious diseases control. A call for case study research is being released in 2014, with the goal of piloting a project that supports a health service sustained through local business models.
EXPANDING SORT IT

The SORT IT programme that supports countries to develop operational and implementation research capacity is expanding into five countries in the central Asia sub-region. A collaboration with the European regional office of the World Health Organization, bilingual Russian and English WHO staff and trainees are serving as facilitators on projects addressing multi-drug resistant tuberculosis. Seven additional programmes are beginning in southern Africa, Latin America and the Western Pacific region.

New and improved treatments

FOCUSING ON SAFETY

Information on the safety of medicines is essential, but is generally not collected and reported in a way that can help inform decisions. TDR has work in three different areas:

A pregnancy register is being developed that provides evidence on the safety of malaria medicines for mothers and their babies. A protocol has been tested for feasibility in Ghana, Kenya, Tanzania and Uganda (soon in Burkina Faso) and data are being analysed. The protocol will also be used and adapted for birth defects when women have been exposed to antiretrovirals during pregnancy.

A global database will be set up that should help collect both country and global data on drug exposure and birth defects.

The feasibility of extracting safety information from available clinical trials is also being explored, as well as collecting prospective information on safety of medicines in ways that could be applied to the conditions of use, including at community level.

TARGETING THE BURDEN OF SEVERE INFECTION IN YOUNG CHILDREN

In addition to the attention on safety for pregnant women, TDR is also focusing on babies. A new project is starting to identify causes of serious infections in young African infants to help understand the burden of neonatal deaths and severe infection in young infants in developing countries.

STRENGTHENING THE EVIDENCE BASE

The evidence base for treatment guidelines is often weak for many infectious diseases of poverty. This is largely the consequence of inadequate methodologies being applied in the way drug trials for some of these diseases are conducted and analysed. TDR is working to correct this by gathering consensus among stakeholders on creating and analysing large databases of existing studies, and agreeing on standardised methodologies to analyse past trials and design better future trials.
SUSTAINING INTERVENTION EFFECTIVENESS

Control of neglected tropical diseases often depends on a single drug, a drug combination or is limited to just a few drugs. To sustain the effectiveness of these medications and their deployment, TDR is promoting and funding research to identify indicators of parasite resistance to drugs and to model how resistance spreads.

Strengthening research capacity where it’s needed most

EXPANDING RESEARCH GRANT SUPPORT

Both early and late career grants are being planned, including:

- 15 post graduate training and research grants
- 5 post-doctoral training and research grants
- 25 impact grants

The highly regarded Career Development Fellowship is now collaborating with EDCTP, the European & Developing Countries Clinical Trials Partnership. An evaluation of the fellowship recommends further expansion, and the fifth round of applications will go out in October.

There are also plans to identify two regional training centres in the African and Eastern Mediterranean regions, adding to the four TDR centres already established on good health research practices in Colombia, Kazakhstan, Indonesia and the Philippines.

“TDR uses the tools of scientific investigation to understand why good drugs, good diagnostic tests, and good preventive strategies fail to reach people in need. In other words, to find the barriers to access and break them down.”

Dr Margaret Chan, Director-General, the World Health Organization
Introduction

Impact and change
2013 TDR annual Repo RT
FACTS AND FIGURES FOR 2013

- Publications
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KEY PUBLICATIONS AND RESOURCES

TDR has a goal of supporting researchers in disease endemic countries to conduct research and lead the writing and publication of the research findings. In 2013, 120 peer-reviewed publications received TDR support, with first authors from 33 low- and middle-income countries and 12 from developed countries. A significant proportion, 41%, had women as first authors. Approximately half of the 2013 publications complied with an open-access/free-access concept; the goal is to make research results accessible to all, no matter where they live.

PRIORITIES FOR TUBERCULOSIS RESEARCH

This report identifies research priorities for tuberculosis in the following thematic areas:

- epidemiology and control;
- health systems and operational research;
- case-finding and infection control;
- HIV-associated tuberculosis, vaccines, new drugs and diagnostics; and
- social science and gender.

It was developed by the TDR disease reference group on TB, leprosy and Buruli ulcer.

RESEARCH PRIORITIES FOR THE ENVIRONMENT, AGRICULTURE AND INFECTIOUS DISEASES OF POVERTY

This report provides an evaluation of challenges presented by interactions between the environment, agriculture and infectious diseases of public health importance. It explores the benefits and limitations of a more systems-based approach to conceptualizing and investigating this problem.

It is a Technical Report of the TDR disease reference group on environment, agriculture and infectious diseases of poverty.
2012 ANNUAL REPORT – IMPACT AND CHANGE

This report provides an overview of the key research achievements and ongoing progress; research capacity building and research priority setting activities; publications and resources; governance and management; performance overview, financial summary and contributor list.

2012 TDR RESULTS REPORT

This report covers the period from January to December 2012, and is the third and last to be based on the Performance Assessment Framework developed in 2009. Future reports will follow a revised framework, aligned with TDR’s strategic plan 2012-2017 and which will be implemented in 2013. This report covers measurement of 10 areas that cover scientific and strategic objectives/outcomes, application of core values, and management performance.

TDR PERFORMANCE ASSESSMENT FRAMEWORK: MEASURING RESULTS

This is a revised framework to monitor the implementation of TDR’s 2012-2017 strategy. It has the following objectives:

- Promote continuous performance improvement through organizational review, learning and informed decision-making.
- Enhance accountability to stakeholders, including beneficiaries, partners and resource contributors.
- Ensure strategic relevance and coherence of TDR’s activities to meet the aspirations expressed in the vision, mission and strategy.
- Ensure TDR’s performance assessment is harmonized and consistent with international practices.
TDR GOVERNANCE AND MANAGEMENT

TDR is co-sponsored by UNICEF, UNDP, the World Bank and WHO, and it is through these international, multilateral organizations that TDR has such an extensive reach and support. WHO acts as the executing agency of the Programme, and provides close ties with its departments for a continuous loop of research informing policy and policy informing research, which in turn supports planning and priority setting at international, regional and national levels.

TDR’s overall management responsibility is ensured by the TDR Special Programme Coordinator, who is an Assistant Director-General of WHO. Dr Hiroki Nakatani, who heads the HIV/AIDS, Tuberculosis, Malaria and Neglected Tropical Diseases Cluster, has had that responsibility since TDR was organizationally moved there in 2012 to support closer ties to the control departments. Day-to-day management is provided by the TDR Director. TDR staff members number 31 and come from all regions of the world.

TDR’s top governing body is its Joint Coordinating Board (JCB), which includes a mix of representatives from developed and developing countries (see figure 2). A Standing Committee composed of representatives from the four co-sponsoring agencies, the Chair and the Vice-Chair of the JCB, the Chair of STAC, one representative from the JCB resource contributors group (a JCB member under paragraph 2.2.1 of the TDR MOU), and one representative from a disease endemic country (which may be a JCB member under paragraph 2.2.2 or paragraph 2.2.3 of the TDR MOU), provides guidance and oversight on an ongoing basis.

Programmatic and technical review comes from the Scientific and Technical Advisory Committee (STAC), which includes 16 internationally recognized scientists. Members serve in their personal capacities to represent the range of research disciplines.

FIGURE 1. TDR governance
Joint Coordinating Board (JCB)

The Board comprises 34 members: 12 members selected by the resource contributors to the Programme (including seven constituencies of two governments sharing one seat); 12 government representatives chosen by the six regional committees of WHO; six members representing other cooperating parties selected by the JCB itself; and the four co-sponsoring agencies. Following a decision at JCB(35) in 2012, the Board will be reduced by six members as of 1 January 2014.

FIGURE 2. JCB membership (as of 1 January 2013)

WHO regions
(Regional Offices)
- AFR: Africa
- AMR: Americas
- EMR: Eastern Mediterranean
- EUR: Europe
- SEAR: South-East Asia
- WPR: Western Pacific
Membership of the Scientific and Technical Advisory Committee (STAC)

1 JANUARY - 31 DECEMBER 2013

<table>
<thead>
<tr>
<th>Membership of the Scientific and Technical Advisory Committee (STAC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chair, Professor Mario-Henry RODRIGUEZ-LOPEZ</strong></td>
</tr>
<tr>
<td>Researcher at the Center for Research for Infectious Diseases, National Institute of Public Health, Cuernavaca, Morelos, Mexico</td>
</tr>
<tr>
<td>2009-2014</td>
</tr>
<tr>
<td><strong>Professor Maged AL-SHERBINY</strong></td>
</tr>
<tr>
<td>Assistant Minister for Scientific Research, Ministry of Higher Education and State Ministry for Scientific Research, Cairo, Egypt</td>
</tr>
<tr>
<td>2010-2013</td>
</tr>
<tr>
<td><strong>Professor Myriam AREVALO-HERRERA</strong></td>
</tr>
<tr>
<td>Professor, School of Health, Department of Clinical Laboratory, Universidad del Valle, Cali, Colombia</td>
</tr>
<tr>
<td>2010-2013</td>
</tr>
<tr>
<td><strong>Dr Vicente Y. BELIZARIO, Jr</strong></td>
</tr>
<tr>
<td>Vice-Chancellor for Research and Executive Director, National Institutes of Health, University of the Philippines, Ermita, Manila, Philippines</td>
</tr>
<tr>
<td>2008-2013</td>
</tr>
<tr>
<td><strong>Dr Yves CHAMPEY</strong></td>
</tr>
<tr>
<td>Medical Doctor, Advisor to the Director General of Evry Genopole, Paris, France</td>
</tr>
<tr>
<td>2008-2013</td>
</tr>
<tr>
<td><strong>Dr Carol A. DAHL</strong></td>
</tr>
<tr>
<td>Executive Director, The Lemelson Foundation, Portland, USA</td>
</tr>
<tr>
<td>2008-2013</td>
</tr>
<tr>
<td><strong>Professor Asma ELSONY</strong></td>
</tr>
<tr>
<td>Director, The Epidemiological Laboratory, Khartoum, Sudan</td>
</tr>
<tr>
<td>2010-2013</td>
</tr>
<tr>
<td><strong>Professor Bruno GRYSEELS</strong></td>
</tr>
<tr>
<td>Director, Institute of Tropical Medicine, Antwerp, Belgium</td>
</tr>
<tr>
<td>2012-2013</td>
</tr>
<tr>
<td><strong>Dr Ikram GUIZANI</strong></td>
</tr>
<tr>
<td>Head of Laboratory, Institut Pasteur de Tunis, Ministère de la Santé Publique, Tunis-Belvedere, Tunisia</td>
</tr>
<tr>
<td>2012-2013</td>
</tr>
</tbody>
</table>
STAC is the committee that peer reviews TDR’s research plans and work.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Institution</th>
<th>Term of Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Vishwa KatoCH</td>
<td>Secretary to the Government of India, Department of Health Research and Director General, Indian Council of Medical Research, Ministry of Health and Family Welfare, New Delhi, India</td>
<td>2010-2013</td>
<td></td>
</tr>
<tr>
<td>Dr Poloko Kebaabetswe</td>
<td>Director, Health Systems Research Unit, BoMEPI – Botswana Medical Education Partnership Initiative, University of Botswana School of Medicine, Gaborone, Botswana</td>
<td>2012-2013</td>
<td></td>
</tr>
<tr>
<td>Professor Christos (Kitsos) Louis</td>
<td>Chairman, Department of Biology, University of Crete, Heraklion, Crete, Greece</td>
<td>2008-2013</td>
<td></td>
</tr>
<tr>
<td>Dr Florenda Luna</td>
<td>Director, Bioethics Program of FLACSO, Latin American University of Social Sciences, Buenos Aires, Argentina</td>
<td>2012-2013</td>
<td></td>
</tr>
<tr>
<td>Professor Lenore Manderson</td>
<td>Professor at the School of Public Health, University of the Witwatersrand, Johannesburg, South Africa</td>
<td>2012-2013</td>
<td></td>
</tr>
<tr>
<td>Professor Anne J. Mills</td>
<td>Vice Director for Academic Affairs, London School of Hygiene and Tropical Medicine, London, United Kingdom</td>
<td>2008-2013</td>
<td></td>
</tr>
<tr>
<td>Dr Anand Wickremasinghe</td>
<td>Dean of the Faculty of Medicine &amp; Professor of Public Health, Faculty of Medicine, University of Kelaniya, Ragama, Sri Lanka</td>
<td>2012-2013</td>
<td></td>
</tr>
</tbody>
</table>
This report covers the biennium 2012-2013, which was a transitional period that moved TDR out of the difficult financial situation in 2011. The 2012-2013 financial recovery plan has been successfully implemented and TDR ended the biennium with a positive balance and a leaner and more cost effective structure (see Figure 1). The transition towards the new portfolio was completed in line with the new strategy 2012-2017, focusing on intervention and implementation research and research capacity strengthening. Projects involving pharmaceutical product research and development have been transitioned out/completed.

The year 2014 started with a sound financial base (see Figure 2). Two budget scenarios (US$ 50 and US$ 60 million) have been approved for 2014-2015. TDR initiated the implementation of the lower budget scenario (US$ 50 million) in January 2014. If funds are sufficient, the US$ 60 million scenario will be initiated later in the biennium.

More than 80% of the funds have been allocated to operations in 2014-2015.
The 2012-2013 financial recovery plan has been successfully implemented. TDR ended the biennium with a positive balance and a leaner and more cost effective structure.

FIGURE 2. Financial outlook 2014-15

INCOME FORECAST 57.3 M

Operations
42.1 M (84%)

Programme support
7.9 M (16%)

Programme support
7.9 M (13%)

Operations
52.1 M (87%)

50 M budget scenario

60 M budget scenario
**PERFORMANCE OVERVIEW**

TDR is using its Performance Assessment Framework to measure progress in the implementation of its vision and strategic plan. The framework, together with its monitoring and evaluation matrix, have been revised with a set of key performance indicators in line with TDR’s new strategy (2012-2017).

The indicators below reflect TDR’s new portfolio that focuses on two core areas: i) intervention and implementation research; and ii) capacity strengthening and knowledge management. The indicators reflect the new knowledge and tools that have helped shape global health policies of WHO and in a number of developing countries. In line with its core principles and values, TDR has continued to give priority to the needs of disease endemic countries and women researchers.

<table>
<thead>
<tr>
<th>Expected results</th>
<th>Key performance indicators</th>
<th>Target (2017)</th>
<th>Progress (contribution 2013)</th>
<th>Frequency of measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>TECHNICAL EXPECTED RESULTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OUTCOME:</strong> Infectious disease knowledge, solutions and implementation strategies translated into policy and practice in disease endemic countries</td>
<td>1. Number and proportion of new/improved solutions, implementation strategies or innovative knowledge successfully applied in developing countries.</td>
<td>30</td>
<td>13 (+4)</td>
<td>Measured annually, cumulative over 6 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥ 75%</td>
<td>72%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Number of tools and reports that have been used to inform policy and/or practice of global/regional stakeholders or major funding agencies.</td>
<td>7</td>
<td>3 (+2)</td>
<td>Measured annually, cumulative over 6 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MAIN OUTPUT:</strong> New and improved solutions and implementation strategies that respond to health needs of disease endemic countries developed</td>
<td>3. Number and proportion of new/improved solutions, implementation strategies or innovative knowledge developed in response to requests from WHO control programmes and/or disease endemic countries.</td>
<td>35</td>
<td>100%</td>
<td>Measured annually, cumulative over 6 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≥ 87%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Number of peer-reviewed publications supported by TDR and percentage published in open access journals.</td>
<td>≥150/year (100%))</td>
<td>327 (2012-2013) (60% (2012-2013))</td>
<td>Measured annually</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(+120 in 2013) (50% in 2013)</td>
<td></td>
</tr>
<tr>
<td><strong>FEEDER OUTPUTS:</strong> High quality intervention and implementation research evidence produced</td>
<td>5. Number and evidence of new/improved tools, case-management, control or implementation strategies generated through TDR facilitation with systematic quality review by external committees.</td>
<td>40</td>
<td>10 (+6)</td>
<td>Measured annually, cumulative over 6 years</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Proportion of peer-reviewed publications supported by TDR with first author from disease endemic countries institutions.</td>
<td>≥70%</td>
<td>68%</td>
<td>Measured annually</td>
</tr>
<tr>
<td>Expected results</td>
<td>Key performance indicators</td>
<td>Target (2017)</td>
<td>Progress (contribution 2013)</td>
<td>Frequency of measurement</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------</td>
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</tr>
<tr>
<td>Enhanced research and knowledge transfer capacity within disease endemic countries</td>
<td>7. Number of disease endemic countries institutions and/or networks demonstrating expanded scope of activities and/or increased funding from alternative sources thanks to TDR support</td>
<td>5</td>
<td>0</td>
<td>Measured annually, cumulative over 6 years</td>
</tr>
<tr>
<td></td>
<td>8. Number of TDR grantees/trainees and proportion demonstrating career progression and/or increased scientific productivity.</td>
<td>150 ≥80%</td>
<td>57 (+37) (% to be measured later)</td>
<td>Measured on cohorts 3-5 years after training ended</td>
</tr>
<tr>
<td>Key stakeholders in disease endemic countries engaged in setting the research agenda and ensuring research reflects their needs</td>
<td>9. Number and evidence of research-related agendas, recommendations and practices agreed by stakeholders at global, regional or country level.</td>
<td>9</td>
<td>8 (+2)</td>
<td>Measured annually, cumulative over 6 years</td>
</tr>
<tr>
<td></td>
<td>10. Proportion of TDR outputs produced with key disease endemic countries stakeholder active involvement.</td>
<td>100%</td>
<td>100%</td>
<td>Measured annually</td>
</tr>
<tr>
<td>APPLICATION OF CORE VALUES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity (11-15)</td>
<td>11. Proportion of TDR grants/contracts awarded to institutions or individuals in Disease endemic countries (total count and total dollar amount)</td>
<td>75%</td>
<td>75%</td>
<td>Measured annually</td>
</tr>
<tr>
<td>Social and economic (11-12)</td>
<td>12. Proportion of experts from disease endemic countries on TDR advisory committees.</td>
<td>60%</td>
<td>69%</td>
<td>Measured annually</td>
</tr>
<tr>
<td>Gender (13-15)</td>
<td>13. Proportion of women among grantees/contract recipients (total count and total amount).</td>
<td>50%</td>
<td>Not measured in 2013</td>
<td>Measured annually</td>
</tr>
<tr>
<td></td>
<td>14. Proportion of women on TDR advisory committees.</td>
<td>50%</td>
<td>42%</td>
<td>Measured annually</td>
</tr>
<tr>
<td></td>
<td>15. Proportion of women as first author of peer-reviewed publications supported by TDR (within a calendar year).</td>
<td>50%</td>
<td>41%</td>
<td>Measured annually</td>
</tr>
<tr>
<td>Effective partnerships</td>
<td>16. Resources leveraged as direct contributions (co-funding, services or in-kind) to TDR projects (examples)</td>
<td>tbd</td>
<td>1:4 (US$ TDR : US$ partners)</td>
<td>Measured annually</td>
</tr>
<tr>
<td>Expected results</td>
<td>Key performance indicators</td>
<td>Target (2017)</td>
<td>Progress (contribution 2013)</td>
<td>Frequency of measurement</td>
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<tr>
<td>------------------</td>
<td>-----------------------------</td>
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<td>-----------------------------</td>
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</tr>
<tr>
<td><strong>APPLICATION OF CORE VALUES (CONTINUED)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustainability of outcomes</td>
<td>17. Number of effective public health tools and strategies developed which have been in use for at least two years.</td>
<td>67</td>
<td>60 (+3)</td>
<td>Measured annually, two years after adoption</td>
</tr>
<tr>
<td>Quality of work</td>
<td>18. Proportion of project final reports found satisfactory by peer-review committees.</td>
<td>&gt;80%</td>
<td>100%</td>
<td>Measured annually</td>
</tr>
<tr>
<td><strong>MANAGEMENT PERFORMANCE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective resource mobilization</td>
<td>19. Percentage of approved biennial budget successfully funded.</td>
<td>≥100%</td>
<td>97%</td>
<td>Measured in the second year of each biennium</td>
</tr>
<tr>
<td></td>
<td>20. Percentage of income received from multi-year agreements.</td>
<td>tbd</td>
<td>26%</td>
<td>Measured in the second year of each biennium</td>
</tr>
<tr>
<td>Effective management</td>
<td>21. Percentage of staff workplans and performance reviews (including personal development plan) completed on time.</td>
<td>≥90%</td>
<td>100%</td>
<td>Measured annually</td>
</tr>
<tr>
<td></td>
<td>22. Proportion of expected results on track.</td>
<td>≥80%</td>
<td>96%</td>
<td>Measured annually</td>
</tr>
<tr>
<td></td>
<td>23. Proportion of significant risk management action plans that are on track.</td>
<td>≥80%</td>
<td>100%</td>
<td>Measured annually</td>
</tr>
</tbody>
</table>
TDR PARTNERSHIPS

“ For each dollar invested in TDR’s technical projects, 4 dollars were leveraged from our partners. ”

COLLABORATION IS CRITICAL. NO ONE ORGANIZATION CAN DO THIS ALONE.

TDR connects with the highest levels of national government, and with clinics in remote locales. We have broad collaborations with private industries, disease control programmes, academia, research institutions and non-governmental organizations. Our co-sponsors – UNICEF, UNDP, the World Bank and WHO – provide core partnerships and support, and we connect to a broad range of organizations through our board and committee members.

STRENGTHENING PARTNERSHIPS WITH WHO HEADQUARTERS AND THE REGIONAL OFFICES

During 2013, TDR focused on strengthening partnerships with our hosting institution. We work closely with the control departments of TB, HIV/AIDS, malaria and neglected tropical diseases. We are also providing project management and technical assistance in the planning phase of the WHO Global Health R&D Observatory, and helping to link together current outside research funding and product pipeline databases on research funding.

At the regional level, small research grants were renewed, with topics determined by WHO regional staff. The African region selected 8 proposals for 6 African countries in the areas of community interventions, improved access for tuberculosis and malaria, and health systems research.

WHO regional and country staff also work with TDR to implement SORT IT operational research and training programmes. SORT IT is a global partnership that includes Médecins Sans Frontières, the International Union Against Tuberculosis and Lung Disease and others. Together with the countries’ ministries of health, they identify major system bottlenecks and the national control staff to be trained to conduct operational research and identify solutions.

The development of the implementation research toolkit was the result of a partnership with the members of the WHO Implementation Research Platform that includes representation covering health systems, women, maternal and newborn health.
WORKING TOGETHER WITH GLOBAL HEALTH INITIATIVES

TDR is involved with multiple UN agencies in a global consultation on environmentally healthy procurement in the health sector. It also works with the Council for Health Research on Development (COHRED) and Drugs for Neglected Diseases initiative to coordinate and promote shared areas.

Negotiations during 2013 led to a 2014 announcement with the European and Developing Countries Clinical Trials Partnership (EDCTP) to work together on the career development fellowship that TDR initiated 15 years ago.

A long-term collaboration with the African Programme for Onchocerciasis Control continues as a model for research and control working together. Through the identification of gaps and analysis of improvements, innovative solutions have been created, such as a community-directed approach that is used for 60 million Africans across the continent. The work is now focused on extending the current onchocerciasis treatment and supporting the development of new drugs.

LEVERAGE

All of these partnerships are done to ensure that the funding we receive goes further than if we worked alone. We call this leverage, and it comes in many forms – not just additional funds but also non-paid collaboration on projects, technical support, facilities, medicinal products, national control programmes expenditure, work done by communities, and international experts volunteering their expertise.

This is the first year where we have estimated the amount of this leverage, which totals approximately US$ 20 million. A full list of leverage and the methodology can be found in the TDR Results Report, available on the TDR website.

For more on our partnerships, visit our website: www.who.int/tdr/partnerships
TDR 2013 CONTRIBUTIONS TABLE

TDR is able to conduct its work thanks to the commitment and support from a variety of funders. These include our long-term core contributors from national governments and international institutions, as well as designated funding for specific projects within our current priorities.

These contributions are based on revenue recognized – where there is a binding agreement between TDR and a contributor. A portion of the contribution may not be included in this list, where according to the agreement, the funds are earmarked and due in a future period.

<table>
<thead>
<tr>
<th>Core contributors *</th>
<th>Amount (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>1 289 009</td>
</tr>
<tr>
<td>Cuba</td>
<td>4 791</td>
</tr>
<tr>
<td>Germany</td>
<td>1 072 636</td>
</tr>
<tr>
<td>India</td>
<td>110 000</td>
</tr>
<tr>
<td>Japan</td>
<td>270 000</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1 617 076</td>
</tr>
<tr>
<td>Malaysia</td>
<td>25 000</td>
</tr>
<tr>
<td>Netherlands</td>
<td>400 000</td>
</tr>
<tr>
<td>Nigeria</td>
<td>192 511</td>
</tr>
<tr>
<td>Norway</td>
<td>2 564 103</td>
</tr>
<tr>
<td>Panama</td>
<td>7 000</td>
</tr>
<tr>
<td>Spain</td>
<td>94 980</td>
</tr>
<tr>
<td>Sweden</td>
<td>4 847 645</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1 819 184</td>
</tr>
<tr>
<td>Thailand</td>
<td>50 268</td>
</tr>
<tr>
<td>Turkey</td>
<td>5 000</td>
</tr>
<tr>
<td>United Kingdom of Great Britain and Northern Ireland</td>
<td>6 010 768</td>
</tr>
<tr>
<td>World Bank</td>
<td>2 800 000</td>
</tr>
<tr>
<td>Zambia</td>
<td>110 604</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contributors providing specific project funding</th>
<th>Amount (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drugs for Neglected Diseases Initiative (DNDI)</td>
<td>96 250</td>
</tr>
<tr>
<td>European Commission</td>
<td>670 930</td>
</tr>
<tr>
<td>Global Alliance for TB Drug Development</td>
<td>240 000</td>
</tr>
<tr>
<td>International Development Research Centre (IDRC), Canada</td>
<td>655 716</td>
</tr>
<tr>
<td>Medicines for Malaria Venture (MMV)</td>
<td>64 782</td>
</tr>
<tr>
<td>Pfizer Inc., United States of America</td>
<td>500 000</td>
</tr>
<tr>
<td>United Nations Development Programme (UNDP)</td>
<td>650 000</td>
</tr>
<tr>
<td>University of Heidelberg, Germany</td>
<td>345 112</td>
</tr>
<tr>
<td>University of Oxford, United Kingdom</td>
<td>78 493</td>
</tr>
</tbody>
</table>

* Contributions were also received from China (US$ 55 000) and USAID (US$ 601 525) for 2013. These are not included in the table above due to timing of receipt of funds.
The Special Programme for Research and Training in Tropical Diseases (TDR) is a global programme of scientific collaboration established in 1975. Its focus is research into neglected diseases of the poor, with the goal of improving existing approaches and developing new ways to prevent, diagnose, treat and control these diseases. TDR is sponsored by the following organizations: