Today, health has once more erupted into the political spotlight. The Sustainable Development Goals call for more efforts to “eradicate a wide range of diseases and address many different persistent and emerging health issues”. The Ebola crisis of 2014 brought to the world’s attention the lack of technologies to deal with potential pandemics. The threat of antibiotic resistance demonstrates how traditional incentive mechanisms fail to spur innovation to answer critical public health needs. And the price of new medications for cancer and hepatitis C in particular have raised questions about what constitutes a fair reward for research and development in countries across the globe.

**Public leadership is essential**

DNDi’s collaborative model has shown at a small scale that alternative approaches to R&D that address pressing public health needs are possible. To fully address the scale of public health needs, public leadership is needed on a more fundamental level, to redefine the ‘rules of the game’ that govern biomedical innovation.
In 2015, in response to these and other concerns, DNDi called on governments to act to address the core problems that need to be tackled:

- the lack of a global body to identifying R&D gaps and needs;
- the lack of global agreed priority setting;
- the lack of effective monitoring and coordination of R&D efforts;
- and the lack of globally agreed norms that guide R&D initiatives to ensure sharing of data and knowledge and the affordability of end products.

DNDi has advocated that a series of progressive policy steps be taken to re-orient the global biomedical R&D system so that it responds to patient needs, neglected by our predominant reliance on commercial incentives to spur drug development. In particular, a political process should be launched to negotiate a binding global agreement on the financing, prioritization, and coordination of medical innovation, and on the norms required to enable the discovery, development, and delivery of and equitable access to innovations of public health importance. Norms should be developed that guide R&D actors and condition funding of research in order to ensure innovation with access.

In a 2015 call published in PLOS, DNDi, together with a group of renowned global health experts, called for the creation of an R&D fund and mechanism. The proposal centred on the creation of a pooled fund that would complement existing funding mechanisms and secure long-term and sustainable financing primarily from governments but also other donors. It would be owned and overseen by governments with a strong link to an intergovernmental agency like the World Health Organization (WHO), but private and philanthropic actors and civil society would be involved as stakeholders. Existing multilateral funds such as the Global Fund, GAVI, or UNITAID, could serve as models. In addition to the fund, the proposal called for a mechanism that could act as an umbrella framework to cover all disease areas that suffer from chronic under-investment in R&D.

Demonstrating the impact of the DNDi model as a part of the WHO CEWG process

In 2015, DNDi also actively raised these messages in multiple policy processes now looking at questions of innovation and access. Foremost among these is a decade-long process at WHO on coordination and financing of R&D, known as the CEWG. It includes a recommendation for the establishment of a global agreement as the most appropriate way to underpin priority setting, coordination, and sustainable financing of affordable biomedical innovations of public health importance.

DNDi has actively participated in this process, including with one of the “demonstration projects” chosen to show the effectiveness of alternative, innovative, and sustainable financing and coordination approaches. DNDi’s proposal for a large-scale R&D project for leishmaniasis was thus awarded $2.3 million from a pilot pooled fund for health R&D hosted by WHO TDR in 2015.
The UN High-Level Panel to address policy incoherence

Beyond WHO, a High-Level Panel was formed at the UN to discuss “the policy incoherence between the justifiable rights of inventors, international human rights law, trade rules and public health”. DNDi’s submission drew lessons from our experience – which serves as a practical illustration of how R&D can be conducted in the public interest, if a de-linked approach is implemented, with R&D costs at a fraction of the traditional pharmaceutical business model.

In addition, global responses to pandemic diseases and antibiotic resistance are swiftly being established. While it is encouraging that so many multiple processes are looking at the issue of global health innovation, the response is currently highly fragmented. Governments need to “join the dots” between multiple frameworks and develop an overarching framework for all R&D actors and for all areas of public health importance.

Going forward, DNDi will continue to engage with WHO, the G7, G20, and other UN processes, with a view to encouraging the taking of progressive steps towards this R&D framework, in order to ensure innovation with access.

ECTMIH 2015 and launch of new business plan: DNDi more committed than ever to neglected patients

In September 2015, the DNDi team attended the 9th European Congress on Tropical Medicine and International Health (ECTMIH) in Basel, Switzerland. ECTMIH brings together over 2,000 of the most distinguished scientists and experts in the field of tropical diseases. DNDi organized five symposia on visceral leishmaniasis, open source drug discovery, helminth infections, sleeping sickness, and mycetoma, as well as participating in seven other symposia. DNDi’s Executive Director, Dr Bernard Pécoul, also participated in the Roundtable ‘Challenges in Global health’ at the plenary closing session.

On the margins of the conference, DNDi also organized a public event to unveil its new business plan for 2015-2023, to develop 16-18 treatments for neglected patients in need of safe, effective, affordable, and accessible medicines.

Attending DNDi’s new Business plan launch: Dr David Reddy, MMV, and Dr Robert Sebbag, Sanofi (top left); Dr Alwyn Gladwyn Zebron Mwinga, Zambia AIDS-Related Tuberculosis Project and patient representative at DNDi’s Board of Directors (top right); Dr Susanna Hausmann Muela, Swiss Agency for Development and Cooperation (bottom left); Dr Guy Morin, Mayor of Basel, and Dr Nkandu Luo, Gender Minister, Zambia (bottom right).
SELECTED SCIENTIFIC ARTICLES AND PRESS COVERAGE

Special Issue: Novel therapeutic approaches for neglected infectious diseases


Repurposing of the Open Access Malaria Box for kinetoplastid diseases identifies novel active scaffolds against trypanosomatids by Kaiser M, Maes L, Tadoori LP, Spangenberg T, Isotel JR. Journal of Biomolecular Screening, February 2015


Infected diseases: Overcoming neglect of kinetoplastid diseases by Bibbe G. Science, May 2015


DNDi and Takeda Collaborate for the Lead Optimization for Aminopyrazole Series for Visceral Leishmaniasis


"DNDi and Takeda entered into a joint development agreement with the aim to develop a cure for mycetoma"
EUR 30 million secured in 2015

Since its inception in 2003, DNDi has secured EUR 395 million from loyal supporters and a growing network of new funders. As DNDi expands its R&D activities during its second decade, it is worth noting that a committed group of funders have provided significant long-term contributions to DNDi. The Bill & Melinda Gates Foundation (BMGF), UK Department for International Development (DFID), Médecins Sans Frontières (MSF), and the Dutch Ministry of Foreign Affairs (DGIS) account for approximately 73% of overall funds awarded since 2003 (see chart p. 67). Unrestricted and portfolio funding also remains highly important as it provides the necessary flexibility to easily react to opportunities or inherent attrition in our R&D activities. In an effort to maintain a sustainable funding pipeline, DNDi continues to make efforts to secure unrestricted and portfolio funding – representing 81% of DNDi’s funding resources.

Innovative funding mechanisms continue to play an important role in DNDi’s funding strategy. The Global Health Innovation Technology (GHIT) Fund, a public-private partnership involving the Government of Japan, leading life science companies, the Bill & Melinda Gates Foundation, the Wellcome Trust, and UNDP, played an important role in supporting DNDi’s leishmaniasis and Chagas disease early discovery activities for an amount of ¥482 million in 2015. The most notable example of its success is the funding of the Japanese portion of the Neglected Tropical Diseases Drug Discovery Booster consortium (see p. 21).

Resulting from a process that began over a decade ago to ensure that R&D for public health needs of developing countries are prioritized, the creation by WHO Members States of a pilot pooled funding mechanism hosted by WHO-TDR to foster innovation for neglected diseases provided EUR 2.3 million to DNDi’s Leishmaniasis Global R&D & Access initiative. This project is based on new R&D incentives and mechanisms following the core principles identified by the WHO Consultative Expert Working Group (CEWG) that includes affordability, effectiveness, efficiency, and equity.

Lastly, Brazil’s National Development Bank (Banco Nacional de Desenvolvimento Econômico e Social – BNDES) granted R$ 3.5 million over three years in support of DNDi’s lead optimization project for the Chagas and leishmaniasis clinical research platforms, where 10% would be complemented by Fiocruz – one of DNDi’s founding partners.

DNDi also continues to make investments in its private fundraising programme. In 2015, DNDi received renewed contributions and attracted new support from private grant-making institutions and individuals worldwide. In the United States alone, DNDi has significantly diversified its funding portfolio and has attracted support from key geographic areas, mainly in the New York, Philadelphia, and Silicon Valley regions.

As DNDi initiates activities in line with the new dynamic portfolio strategy and the 2015-2023 Business Plan, new challenges remain ahead for DNDi in terms of funding its R&D portfolio and new disease areas. To reach its goal of delivering 16-18 treatments by 2023, DNDi needs to secure an additional EUR 255 million for an investment total of EUR 650 million. Maintaining the support of committed funders will be important in helping DNDi reach its funding goal. It will be just as important to secure new support from additional governments and private entities in order to diversify the funding portfolio and thus solidify the sustainability of DNDi’s R&D programmes.

KEY CONTRIBUTIONS RECEIVED IN 2015

**Dutch Ministry of Foreign Affairs (DGIS), The Netherlands (2015−2020)**

The Directorate-General for International Cooperation provided portfolio funding support of EUR 16 million over 5 years for mycetoma, sleeping sickness, leishmaniasis, Chagas disease, and early discovery activities.

**Department for International Development (DFID), UK (2015)**

DFID provided supplemental funding of GBP 3 million for the year 2015 to support Chagas disease, VL & CL, sleeping sickness, discovery activities and attend scientific conferences to present DNDi’s NTD research. DFID’s total contribution to date is GBP 64.4M.


WHO-TDR awarded EUR 2.3 million in support of a large-scale R&D project for leishmaniasis. The ‘Leishmaniasis Global R&D and Access Initiative’ project is based on the principle of de-linkage, which dissociates the cost of R&D from the price of the resulting products.

**French Development Agency (AFD), France (2015−2018)**

AFD and DNDi signed a partnership agreement of EUR 2 million for the development of a new, safe, and effective oral treatment to support efforts to control leishmaniasis in East Africa (Sudan, Ethiopia, Kenya, and Uganda).

**Global Health Innovation Technology Fund, Japan (2015−2017)**

The GHIT Fund invested EUR 3.2 million in a partnership between Takeda Pharmaceutical Company and DNDi for the development of a new drug for visceral leishmaniasis based on a promising new series of aminopyrazoles. GHIT also awarded EUR 550K to DNDi and three Japanese pharmaceutical companies in support of the NTD Drug Discovery Booster.

**Banco Nacional de Desenvolvimento Econômico e Social (BNDES), Brazil (2015−2017)**

BNDES supported a partnership between DNDi and Fundação Oswaldo Cruz (Fiocruz) with a grant of R$ 3.5 million for local efforts in Brazil, mainly around lead optimization and capacity strengthening for leishmaniasis and Chagas disease.

**DGIS: A LONG-TERM SUPPORTER OF DNDi**

DNDi has a robust and longstanding partnership with the Dutch Ministry of Foreign Affairs (DGIS) and the Government of the Netherlands. In the past decade, Dutch funding of nearly EUR 33 million provided in 2006, 2011, and 2015 has supported multiple projects related to malaria, sleeping sickness, leishmaniasis, Chagas disease, early discovery, and most recently mycetoma. The funding provided has contributed to the development of new medicines for children and adults suffering from neglected tropical diseases as well as the progression of new chemical entities towards clinical development and ultimately support of elimination programmes.
Maintaining balanced and diversified funding is essential to DNDi’s vision and independence

To develop its activities and meet its objectives, DNDi seeks diversified sources of funding from public and private sources, which include financial contributions from governments, public institutions, private individuals, foundations, founding partners, and innovative funding mechanisms. The diversification of donors increased in 2015 with three new donors. DNDi welcomed WHO-TDR, the Ministry of Health of Brazil, and Kalacore, all public sources of financing, and one from an endemic country.

Concerted efforts were made to ensure that no one donor contributes more than around 25% towards DNDi’s business plan and that at maturity, half of DNDi’s budget is covered by public funds and half by private funds.

In 2014, public funding (projected to 2019) was at 51%, with private support at 49%. In 2015, with secured funds until 2020, the split remains balanced with public funding at 54% and 46% for private support. This is mainly due to the fact that most (EUR 30.2 M, 98%) of the new funding granted in 2015 for the period 2015-2020 are contributions from public institutions, including the UK (DFID), WHO-TDR, France (AFD), Japan (GHIT), Brazil (BNDS), Germany (KfW), and the Netherlands (DGIS).

A successful shift toward unrestricted funding

Over the last five years, DNDi managed to maintain a balance between restricted and unrestricted grants. While the ratio is relatively balanced, this requires substantial effort. Unrestricted funding has been part of DNDi’s success to date as it allows the organization to respond quickly to research opportunities and also terminate projects that do not meet targeted goals set forth in the business plan. In 2015, DNDi continued to receive significant portfolio funding (EUR 21.2 M, 69%) from various donors including the Netherlands (DGIS), France (AFD), WHO-TDR, and Brazil (BNDS). This allows a certain degree of risk mitigation within restricted grants, as it supports three diseases and various projects within each disease. Portfolio grants accounted for 18% of total income in 2011, 22% in 2012, 29% in 2013, 33% in 2014, and 37% in 2015.