We declare that we have no conflict of interest.

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Global framework on essential health R&D

One of the critical issues to be discussed at the next World Health Assembly (Geneva, May 22–26) will be a resolution about a global framework on essential health research and development.[1] Over past years, the crisis in research and development in the worldwide pharmaceutical industry, and in particular the absence of research and development for new medicines targeting diseases that mainly affect people in developing countries (neglected diseases), has become a global concern.[2]

This worrying situation is clearly shown by the number of drugs targeting neglected tropical diseases. From 1975 to 1999, only 13 drugs from 1393 new chemical entities (NCE) marketed were indicated for a neglected disease.[3,4] The 13 drugs included four for malaria and nine for the most neglected diseases. Three more drugs could be added if tuberculosis is included in the analysis (table).[4]

	Products	
	1975–99	2000–04
Malaria	Atovaquone	Artemotil
	Artemether	Artesunate
	Halofantine hydrochloride	Lumefantrine
	Mefloquine	Chlorproguanil+dapsone*
Chagas' disease	Benznidazole	..
	Nifurtimox	..
Helminthic infections	Albendazole	..
Human African trypanosomiasis	Eflornithine	..
	Pentamidine isetionate*	..
Leishmaniasis	Liposomal amphotericin B*	Miltefosine
Onchocerciasis	Ivermectin	..
Schistosomiasis	Oxamniquine	..
	Praziquantel	..
Tuberculosis	Pyrazinamide	..
	Rifabutin	..
	Rifapentine	..
Total	16	5

*These drugs are not new chemical entities but new salt, formulation, or combination.

***Table*: Number of new drugs targeting neglected diseases**

We have updated these figures to 2004. From 2000 to 2004, an additional 163 NCEs have been marketed in the world, adding up to a total of 1556 NCEs for the 30 years from 1975 to 2004.[5] During these 5 years, four NCEs targeting neglected diseases have been commercialised (table). Artemotil is a derivative from artemisinine discovered in the Chinese traditional medicine *Artemisia annua*. Artemotil is available as injection for severe malaria.[6] Artesunate is another derivative from artemisinine. Artesunate should be used only in combination (artemisinin-based combination therapy) to treat malaria. Different co-blisters containing artesunate with a partner drug (existing antimalarials such as sulfadoxine/pyrimethamine, amodiaquine, mefloquine) are available on the market. Furthermore, several co-formulations containing artesunate and the partner drug in the same tablet are being developed.[7,8] Lumefantrine is marketed as a co-formulation with artemether, also a derivative from artemisinine.[9] Miltefosine is the first oral dug against leishmaniasis.[10] The combination of chlorproguanil with dapsone (Lapdap) has also been launched during the past years. It is not a NCE, but there has been research on this drug.[11]

In total, over the past 30 years, the number of drugs targeting neglected diseases is ten if we consider the most neglected diseases, 18 if we add malaria, and 21 if we add tuberculosis. These totals still represent only around 1% of

all NCEs (1556) launched during this period—a situation that is essentially unchanged from 5 years ago.

The emergence of product-development partnerships for neglected diseases has been encouraging: with sufficient funding the current pipelines for neglected diseases could potentially deliver eight to nine drugs within the next 5 years.[12] Although such a step forward would be good, it is not enough to change the overall situation. Product-development partnerships in drug research and development for neglected diseases still mainly depend on philanthropic funding, which reached US$212 million by April, 2005, or 78·5% of the total funding of these initiatives, much of it from the Bill & Melinda Gates Foundation. Public funding was calculated at a low 16%, although the British Government in March, 2006, announced substantial additional funding worth £17 million (or about $30 million). With promising drug compounds moving into more expensive clinical trials, there remains a funding gap of several hundred million dollars for existing initiatives alone.[12]

There is definitely a proactive role for WHO to play here, because only a long-term commitment by governments to fund and otherwise support research and development in neglected diseases in the public interest would substantially change the situation of neglected diseases and neglected patients.

The report of the WHO's Commission on Intellectual Property Rights, Innovation, and Public Health, released April 3, 2005, is urging WHO to "develop a Global Plan of Action to secure enhanced and sustainable funding for developing and making accessible products to address diseases that disproportionately affect developing countries".[13] The World Health Assembly's discussion in May on a global framework on research and development in essential health will be a timely opportunity for governments to take action to ensure needs-driven research and development addressing rich and poor patients' needs. Member states should warmly welcome the resolution on research and development and start building a new framework on research and development for essential health.

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Jules Rimet's bananas

For a whole month from June 9 of this year civilised activity and conversation will be silenced by the quadrennial competition for association football's World Cup, the Jules Rimet trophy, in which 32 national teams will try to slot an air-filled plastic sphere through a rectangle measuring 2·4 by 7·2 m. This is not as easy as it sounds. For example, on Saturday, March 18, one-third of the sides competing in the top nine English and Scottish football leagues did not succeed once during 90 min of endeavour. Even with no goals and despite many unattractive features, on and off the field, this is still called "the beautiful game". The wall set up against a direct free kick is anything but elegant, with its serried row of defenders blocking the straight path to goal and nervously protecting other sensitive sites with hands (when male) crossed below the waistband. There is a counter to this ploy, the banana kick,