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**BYLINE:** By Chan Chee Khoon

**BODY:**

AT a recent conference in Penang (Feb 6-7) organised by Medecins Sans Frontieres (MSF) and the Drugs for Neglected Diseases Initiative (DNDi), John Sulston, the 2002 Nobel laureate in medicine declared that the problem of neglected diseases was not so much a market failure as the absence of a market which could bring into existence the required medical armamentarium.

This was more than a semantic quibble. Indeed it captured quite succinctly the two strategic postures which were dormant throughout much of the conference (in truth, a continuum rather than two polar opposites), but occasionally erupted in robust exchanges between such personalities as US-based James Love (Consumer Project on Technology) and representatives of big pharmaceuticals (most notably Novartis).

The tension of course was between non-market approaches versus reforms to "make the market work better".

Alex Matter, founding director of the Novartis Institute for Tropical Diseases in Singapore (established in 2002), revealed that Novartis had set up an establishment and allocated an operational budget of US\$122 million (RM463.6 million) for the first five years to carry out research on neglected tropical diseases.

He said that "in those developing countries where these diseases are endemic, Novartis AG intends to make treatments readily available and without profit." (Novartis ITD website).

After some inconclusive discussion on the meaning of "non-profit" in relation to the accounting details of variable and fixed costs (most importantly, research and development), in the product development and marketing of drugs, some participants were left wondering as to whether this was an expensive public relations exercise for Novartis.

The less cynical, however, drew attention to the potential markets which could be created by the Global Fund for AIDS, TB and malaria (GFATM), the Bill & Melinda Gates Foundation, United Kingdom - Department for International Development (UK-DFID), and Advance Purchase Commitments (APC).

The latter is an incentive mechanism for drug or vaccine R&D where success is uncertain and effective demand does not otherwise exist.

This APC approach, which guarantees a purchase at specified price and volume in the event that an acceptable product emerges, is currently much in vogue at the World Bank, UK-DFID and other international development and academic circles.

It was also the subject of a lengthy paper and critique by Oxford economist Andrew Farlow at another session.

In the earlier panel, Ee Chee Ren, deputy director of the Genome Institute of Singapore (GIS), described a joint-venture between GIS and Roche Pharmaceuticals in developing a diagnostic test that could detect the SARS coronavirus before the onset of symptoms, and furthermore could provide results within one hour.

Dr Ren, however, declined to provide details on the benefit sharing agreement between the GIS and Roche, although he did allow that the diagnostic kit to be marketed by Roche would be priced at about US\$20 per kit.

Suerie Moon from MSF quite correctly pointed out that SARS would not count as a "neglected disease". With 10 per cent of Singapore's gross domestic product (GDP) at stake (tourism), not to mention the more distal economic effects extending as well to China and other SARS-sensitive East Asian economies, the market for SARS diagnostic kits, vaccines, and therapies is assured in East Asia.

(In Malaysia, the tourism sector accounts for seven per cent of GDP and foreign exchange earnings second only to manufactured exports).

This is in contrast to the neglected diseases highlighted by MSF. Of the 1,393 new drugs approved between 1975 and 1999, only 16, or just over one per cent, were specifically developed for tropical diseases such as malaria, sleeping sickness, Chagas' disease, kala azar and tuberculosis - diseases that account for 11.4 per cent of the global disease burden.

For 13 out of those 16 drugs, two were modifications of existing medicines, two were produced for the US military, and five came from veterinary research. Only four were developed by commercial pharmaceutical companies specifically for tropical diseases in humans.

These neglected diseases mainly affect poorer communities in countries of the South, which do not constitute a valuable enough market to stimulate adequate R&D by the multinational pharmaceutical companies.

In the event that "philanthropic" Keynesianism doesn't deliver adequate returns to the multinational pharmaceutical companies, we can anticipate that companies like Novartis will turn to more marketable R&D in its tropical diseases research agenda, much along the lines of the publiclyfunded, marketoriented Genome Institute of Singapore, which currently focuses on SARS, and perhaps avian flu and Nipah among its

tropical disease research priorities.

In short, we would be back to an intractable, fundamental dilemma: need versus demand, in its neglected diseases and orphan drugs incarnation.

The writer is a member of Citizens' Health Initiative. He is also Associate Professor (Epidemiology & Health Policy) at Universiti Sains Malaysia. He can be reached at: [ckchan@usm.my](mailto:ckchan@usm.my)

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