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AN AUDIENCE WITH…

Jim O'Neill


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Drug-resistant superbugs could claim 10 million lives a year and cost the global economy a cumulative US$100 trillion by 2050, found a recent UK-commissioned report into the risks of antimicrobial resistance (AMR). The sobering analysis, chaired by former Goldman Sachs chief economist Jim O'Neill, called for global funders to direct up to $40 billion towards various efforts to tackle the growing scourge. But although O'Neill advocates $1 billion market entry rewards to encourage pharmaceutical companies to develop new therapeutics, he also argues that the industry as a whole has not been sufficiently engaged in finding creative solutions. It's time for industry to start thinking differently, he tells **Asher Mullard**.

How much thought had you given to AMR before being commissioned by the UK government to lead the review?
That's easy: none. I'm one of the billions of people who didn't know what it was. I couldn't even pronounce antimicrobial resistance for a number of weeks. But it has turned out to be one of the best things I've ever done.

What was your review process?
I made some very strong decisions right at the start. First, although I was encouraged to form an expert advisory group, I chose not to do that because I thought it would constrain my and my team's ability to be open minded. Second, I consciously decided to stay away from the World Health Organization (WHO) and many experts in the early stages of the process because it seemed to me that if we were going to make a difference we would have to think differently from the experts.

My message to my small team of 5.5 people was to try to think ambitiously. One of our missions was to drag all the key participants out of their comfort zones, because otherwise there won't be any chance of solving this problem.

What was the biggest surprise?
I was very surprised at how narrow-minded and unambitious the pharmaceutical world is in thinking about the problem of financial business models for antibiotics. This is especially true when I reflect back on my own industry and the chaos that the financial industry was in in the middle of 2008. A large number of people saw that crash coming, but they just didn't see the scale and timing of the damage that would ensue. When I look at AMR, the supposed lack of attractive returns for industry on antibiotics, and the enormous and seemingly strong price-to-earnings ratios of pharmaceutical company shares, I see parallels that suggest that cutting-edge players in the pharmaceutical industry should behave differently. They don't show a lot of what I love to call 'enlightened self interest'.

You recommend a mixture of old and out-of-the-box ideas about how to create financial incentives to attract industry into AMR research. What was industry's response?
They welcomed everything in the report, apart from the section that says they'd have to spend more money.

I think they are being unimaginative. At Davos, Switzerland, this year, 85 companies signed a declaration calling on governments to develop new and alternative market models for antibiotics. This was a great development. If someone had said 2 years ago that all these companies would have done this, I would have said "no chance". But when it comes to actually changing anything about their own role they are very reluctant to go down a different path. I think that industry needs to make a Davos declaration 2 in which they put more on the table in terms of what they are prepared to spend and do, because otherwise policy-makers might end up doing things that they really won't like.

A lot of the pharmaceutical world thinks that our 'pay or play' proposal — in which we suggest that pharmaceutical companies could either pay a fee into an AMR research fund or invest directly in internal antibiotic R&D programmes — just came out of my team's head. But policy-makers are attracted to ideas like this because they look at the pharmaceutical industry and see a staggering amount of apparent profitability and a seeming reluctance to pursue genuine research in areas that are difficult and don't have obvious revenue streams.

How are policy-makers and funders responding to your call to free up $40 billion over 10 years for AMR initiatives?
Ask me again in October. Hopefully on 4–5 September the G20 will publish a communiqué about how to get and pay for new drugs when they meet formally in Hangzhou in China. But I won't know whether that will be the case, or how strong their statement will be, until after that meeting. There could also be a United Nations agreement on this in September.

But a number of things we proposed are already happening. We called for the creation of a global innovation fund to support preclinical research into antimicrobial products, and the recent launch of CARB-X provides evidence that this is happening (*Nat. Rev. Drug Discov.*, 29 Jul 2016).

Although the UK government commissioned your report, AMR is a global problem and requires a global response. The European Union (EU)'s Innovative Medicine Initiative has taken a lead here, coordinating a few international AMR collaborations (Nat. Rev. Drug Discov.* 13, 711–713; 2014). *Could the United Kingdom's vote to leave the EU put a damper on this momentum?
I was in Brussels recently and was quite worried that some of the meetings might be cancelled because of the Brexit decision. But, encouragingly, they were not. This is a global problem, and it affects people whether they are in the EU or not in the EU, and I think this is still widely appreciated.

But there's no two ways about it: the UK population's vote to leave the EU has invited a major economic challenge. It will not be helpful.