Huge, rapid R&D scale-up to fight COVID-19 unmatched, but most new tools remain months away or longer

Sydney, Australia, 25 June 2020 – US$7.3 billion in funding (see EDIT) has been committed to the research and development (R&D) of products to fight COVID-19 in under six months, supporting a pipeline of more than 850 product candidates, according to the COVID-19 R&D tracker produced by the think tank Policy Cures Research.

“We’ve never before seen such a rapid escalation of research and development (R&D) to fight an infectious disease,” said Dr Nick Chapman, CEO of Policy Cures Research. “This big push for breakthroughs showcases the world’s ability to rapidly respond, but we must remain grounded in the reality that we are in this for the long haul, and continue to work to ensure everyone receives access to any new tools.”

Funding for COVID-19 R&D shows major focus on vaccines

A new analysis of the tracker shows the sheer scale of the global race to develop a COVID-19 vaccine, with the US$3.7 billion committed to date for vaccine development accounting for half of the US$7.3 billion in publicly disclosed funding for COVID-19 R&D, compared to a little over US$1 billion for therapeutics and US$731 million for diagnostics.

The vast majority of the publicly announced funding committed so far has come from governments; the US Biomedical Advanced Research and Development Authority (BARDA) is currently the largest single funder of COVID-19 R&D, with funding commitments of nearly US$1.5 billion, and the US government overall has committed US$2.2 billion.

Many governments which haven’t traditionally funded emerging infectious disease R&D have announced significant contributions, such as South Korea (US$173 million), Saudi Arabia (US$160 million) and Spain (US$113 million), along with many diverse foundations and corporate donors.

Since 2016, the G-FINDER project by Policy Cures Research has gathered data on R&D funding for two earlier coronaviruses, Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). This data shows a total global funding for coronaviruses of just over US$100 million between 2016 and 2018, compared to US$7.3 billion for COVID-19 so far in 2020.

Product pipeline sees rapid progress but long way to go

The commitment of unprecedented levels of funding has helped drive a flourishing R&D pipeline, with at least 171 vaccine candidates, 319 potential therapeutics and 364 diagnostics currently in development. And the speed with which the R&D pipeline is progressing has been impressive, particularly for vaccines.

It took only 69 days from the identification of the novel coronavirus to starting the first-in-human COVID-19 vaccine trial. As of today, there are 15 vaccine candidates in various stages of clinical development, including one in a late-stage efficacy trial. In comparison, it took 25 months for the first vaccine to enter human trial during the last SARS outbreak (2002-2004).

“The vaccine is a moonshot,” Dr Chapman said. “An effective vaccine would be the game changer against COVID-19, but only if made available to everyone. We cannot leave the
world’s most vulnerable behind and this will also require much more time and investment. We need some quick wins with other tools now.”

Diagnostics were the early success story, with nearly 100 tests having already received accelerated approval for emergency use. But for therapeutics (drugs and biologics) the picture is less promising; so far only one anti-viral has been conditionally approved by a stringent regulatory authority, and most of the investigational candidates are repurposed drugs, with fewer than 20 genuinely novel (new) or near-novel anti-viral candidates currently in human trials. None of these new or existing direct-acting drugs have so far proved effective.

The tracker also notes a clear need for more investments in basic research to better understand COVID-19. Product development is the overwhelming focus of the global funding response, even while some critical basic science-related questions remain unanswered. For example, even though there are hundreds of vaccines in development, we are still yet to agree on fundamental facts about what is needed for a vaccine to be effective.

EDIT: In our 25 June COVID-19 R&D tracker analysis, we said total R&D funding was nearly US$8.5 billion, however, after reviewing our methodology we decided to declassify BARDA’s contract with AstraZeneca for $1.2 billion as R&D funding and instead consider it as manufacturing and procurement which falls outside our scope. Therefore, we have updated this press release for the record after it was initially issued on 25 June to match total R&D funding figures as $7.3 billion along with other related figures such as funding for vaccines. Policy Cures Research is currently working on separately displaying funding data for the activities essential to the actual production, procurement and distribution of COVID-19 products that falls outside our definition of R&D.

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About the COVID-19 R&D tracker
Tracking COVID-19 R&D since January, Policy Cures Research’s COVID-19 R&D tracker seeks to help funders, policy makers, researchers and others understand the evolving COVID-19 R&D landscape. Captured in near real-time and based on publicly available information, the tracker offers insights on who is leading the fight, what’s being prioritized, what’s in development and where funds are flowing (or not).

About Policy Cures Research
Policy Cures Research is a global health think tank with a long and pioneering history in global health R&D data collection and analysis, securing our position as a trusted source of quality evidence within the sector.

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