



Investment views

A response to COVID-19

Issue 8 | Third quarter 2020



Dr. Bruno Eschli
Investor Relations Officer,
Roche

In the following interview with Dr. Bruno Eschli, investor relations officer at Swiss pharmaceutical company Roche, we learn about the challenges of developing a vaccine for COVID-19, the pharmaceutical sector's response to the crisis and how it could impact the industry's reputation.

Roche is a key holding in our discretionary portfolios. For further information on our investments, please do not hesitate to contact your client adviser.



William Haggard
Head of Investment Insights

The world has spent much of 2020 talking about COVID-19 and a quest for a vaccine – what can history teach us?

Historically, a quick turnaround for developing a vaccine is around five to six years, with 10 years or more being closer to the average. With some viruses, such as HIV, a vaccine has proved elusive even after 30 years of research.

Despite 2020 feeling like a long year for many, we must remember that we only identified COVID-19 at the end of 2019. Every day we continue to learn more about how the virus interacts with humans and how the infection develops based on an individual's genes, immune system or blood group, for example. We are also continuously monitoring the virus evolution in an unprecedented manner as it moves and spreads around the world. The latter point is important because if COVID-19's mutation rate is high, a vaccine will be unlikely to provide full immunity for more than one season – as is the case with the winter flu vaccine.

What we do know is that this pandemic is now of such a critical size that the virus will remain in circulation among humans and can no longer be contained. The severity of infection will change over time and as the level of natural immunity increases across the population, COVID-19 will be pushed into the natural reservoir of viruses, which we learn to live with – but that phase is still some way off.

What are the chances of getting a vaccine any time soon?

Well, on a positive note, there are around 100 to 150 vaccines being developed around the world. This number of different shots on goal will increase the odds of producing a successful vaccine. Optimistically, I would estimate a good vaccine to be available for a large part of the population by the end of 2021. What is still unclear is what level of immunity a vaccine will offer and also how manufacturing and distribution will be able to meet demand. To be effective at containing the virus, a large proportion of the global population will need to be immunized. This poses a unique challenge for governments and the private sector, which will have to work together in order to meet mass-production and delivery targets.

In your view, can we bring the current COVID-19 pandemic under control without any vaccine?

Absolutely. There are various ways to approach this, but a good vaccine would probably be the most powerful solution. Anti-viral drugs including neutralizing antibody cocktails, which are already in a progressed development stage for COVID-19, stop the virus replicating in an infected individual or might even be used as preventative treatment against infection. However, viruses can escape these drugs via mutations, probably faster than they can with effective vaccines. For example, cocktails of anti-viral drugs, which are given in a sequential order, have been developed to fight viruses such as HIV, which continues to escape through mutations.



Christoph Wirtz
Equity Analyst

“Roche has been at the forefront of developing COVID-19 tests and now produces more than 15 million molecular tests per month.”

Dr. Bruno Eschli | Investor Relations Officer, Roche

Currently, existing anti-viral drugs on the market are being screened to help with the fight against COVID-19.

In addition to anti-viral treatments, drugs that target the immune system are also being tested to see if they can help fight COVID-19. Those that help suppress over-stimulation of the immune system are of particular interest. From the early days of mapping COVID-19 in Wuhan, doctors noticed that one of the deadliest aspects of the disease is the overreaction it causes in patients' immune systems. Blocking this negative feedback loop between the virus and the immune system, through the timely use of immune-modulatory drugs, could keep patients out of intensive care and ultimately save lives.

A separate issue has been the development of testing – what are the available tests and how advanced are we in this field?

A polymerase chain reaction (PCR) test and an antibody test are both needed on a mass scale over the next two years to track, trace and ultimately contain COVID-19 among the general population. The PCR test detects viral genetic material and shows if you are actively infected with the virus. It is a highly sensitive test used in the first few weeks after the infection and can help to quantify the overall viral load.

Meanwhile, the antibody test traces the presence of specific COVID-19 antibodies in your bloodstream. These start to develop a few days after showing symptoms, but are unlikely to show in sufficient quantity or quality for the test to accurately detect their presence until around two weeks into infection.

Generally, antibodies will stay around in your bloodstream for six to eight months depending on the infection level. Therefore, the antibody test is an essential tool to retrospectively map a community's exposure to the virus. This data can be used to determine whether an individual has achieved some level of viral immunity and also whether herd immunity has been achieved at a population level.

What is Roche's contribution to the development of testing?

Roche has been at the forefront of developing COVID-19 tests and now produces more than 15 million molecular tests per month for COVID-19-related testing. We have the capability to manufacture up to 100 million antibody tests per month. At a global level, demand currently outstrips supply for PCR tests, while antibody tests remain in oversupply. The latter point might change as we leave the first wave of the outbreak behind us, and governments want to track and map immunity levels across communities to be better prepared for a second wave.

Criticism has been raised at the lack of coordination globally around the development of a vaccine. What fresh insights can you bring to this debate?

There has not so far been a worldwide coordination in the development of a vaccine. Given that we are at the research stage, this is not a bad thing. Media and the public don't always appreciate this, but science needs to take place within an environment of trial and error. We need to foster diversity when it comes to testing new approaches and ideas if we are to find a relatively quick solution to the COVID-19 crisis. It is crucial at the research stage of this problem that science is allowed to develop organically, free from the confines of any singular “global” approach. The latter can easily stifle research and innovation through an over-reliance on groupthink.

However, coordination is important when it comes to manufacturing. Once we have found the most potent drugs or vaccines to combat COVID-19, we will need to foster collaboration in order to ramp up global production. For this reason, the industry has already been looking into manufacturing capacities and many deals have already been signed to assure successful drugs or vaccines can be produced quickly and on a large scale.

“The current pandemic has nevertheless unmasked large inequalities in healthcare systems around the world.”

Dr. Bruno Eschli | Investor Relations Officer, Roche

To what extent does the fight against COVID-19 disrupt the research and development (R&D) spend and planned pipeline of drugs at big pharma companies?

We are anticipating a two-year knock-on effect caused by the current outbreak, although it is hard to predict at this stage. The main area of R&D disruption concerns delays to trial testing. Recruiting new patients and securing patient visits at the hospitals for trials during a health crisis is clearly challenging and can slow down data collection, or worse, lead to the closure of trials.

So far the impact for our development program has been very limited and our teams are constantly monitoring the situation and working on mitigation strategies. We can confirm that all our late-stage trials in 2020/21 will read out as expected. We have seen some delayed phase one trial starts, but this situation is also now improving.

How do you view the current sentiment towards the pharma industry across the globe and what opportunities or challenges does the current crisis pose?

It should come as no surprise that the pharmaceutical sector realised early on what was happening with the advance of COVID-19. For example, Roche has a significant workforce in China and became aware quickly that the “Wuhan flu” was indeed very serious. From late January on, we were put on alert and the company went into overdrive to develop PCR and antibody tests. This was achieved in record time, as PCR and antibody tests usually take up to three years to bring to market.

When it comes to PCR and antibody test pricing, Roche has been very responsible to ensure that tests are broadly accessible. Yet once we launched the tests, we were blamed by competitors for pricing them too cheaply in order to push out competition and monopolise the market in the long term – which was never our intention.

To the outside world, we hope that the public realise the work that companies like Roche have put in to fighting COVID-19, and that the industry can help solve healthcare issues by leveraging the latest technologies, instead of being an obstacle to the healthcare system. I believe our

diagnostics business is an excellent example of how smart investments in new technologies will help us to improve the outcomes for patients around the world, and allow us to handle a pandemic as never before in human history.

The current pandemic has nevertheless unmasked large inequalities in healthcare systems around the world – driven largely by differences in government spending. So overall, I would expect many takeaways from the pandemic on a country and company level. For example, at Roche we might ask ourselves whether diagnostics test development can be accelerated together with regulators or what role working from home and virtual meetings could play in the future.

Ultimately, I hope our efforts at Roche are recognized and people will not forget the role that ‘big pharma’ played in helping combat COVID-19. Of course, critics will remain, but this should not stop us from working towards the development of a cure, which will ultimately lead us out of the current crisis.

Why we like Roche

Our equity analyst, Christoph Wirtz, has spent years following the Swiss pharmaceutical giant Roche. He reminds us of five key reasons why he still likes the company:

1. Roche offers one of the most durable franchises in Swiss and European pharma and develops world-class cutting-edge products in the fields of oncology, immunology, infectious diseases, ophthalmology and neuroscience.
2. It's a world leader in diagnostics and is positioned strongly in the face of the COVID-19 crisis on both viral and antibody tests.
3. The company has the largest R&D department in the global pharma industry and spends around 20–22% of sales on R&D versus an industry average of around 16%.
4. Its management team has deep industry experience and its remuneration from a governance perspective is aligned with shareholder interests.
5. The founding family continues to hold the majority voting stake. This stability allows for long-term planning and thinking, which is key to the company's strategic development.

Investment Insights

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Produced by: William Haggard
Publication date: August 2020