## Necessity the mother of invention?

Patents have been in the news a lot recently, mostly in predictable ways. Intellectual property that prima facie monopolises life-saving medicine is never popular, because it will be seen as raising prices and limiting access.

Patent Attorney Andy Bentham of J A Kemp in Cambridge looks back over patenting in the pandemic so far.

Calls for a "patent waiver" of some sort were therefore inevitable based on past experience in relation to HIV drug access in Africa and breast cancer diagnostics worldwide, and the ever-present concern about the price of sophisticated treatments such as gene therapies.

Like vaccines, these are expensive to develop but naturally those in need of them see IP as impeding their access.

For COVID-19, of course many say that vaccine manufacture and logistics are bigger issues than IP and point to the potential power of license arrangements such as those between AstraZeneca and the Serum Institute of India as more nuanced solutions that would not risk discouraging future innovators or investors.

Complicating this further is that much public money was invested in Covid research so it is understandable that a degree of public entitlement is expected in return but that may not have been agreed up-front in the rush to get started.

The details of a patent waiver could also be complex if it is to avoid over-reach into pre-existing commercial IP that is not Covid-specific. A high degree of consensus will be required from World Trade Organisation member states if any effective global IP waiver is to be possible, but such consensus does not yet exist even though the US is perhaps surprisingly supportive.

These are hard questions that may require longer to resolve than the pandemic takes to control and may or may not result in useful frameworks for future crises.

Away from this spotlight, however, we find academic inventors in the UK anything but discouraged. Early on, few labs were fully operational and definitely many experiments have gone undone.

Some patent applications filed in 2019 and early 2020 in the expectation of adding data later are therefore weaker for this. There may also be some issues for new applications as academics who have not been able to work in the lab much may feel under increased pressure to publish and hence not as able to hold back on that to optimise the timing of patent filing.

But university technology transfer organisations (TTOs) have been busy during this time with scientists submitting new inventions. This is just an empirical observation but two practical reasons could be that, first, that a lot of modern science is less lab-based and more computational, and second simply the dedication of researchers in finding ways to work under restrictions. Maybe they also had more time to evaluate their work, which tends to be how inventions arise.

And of course many minds turned to COVID-19. Not all increased activity has been Covid-related at all but certainly there are now very many patent applications for vaccines, diagnostics, devices and more in the system. Importantly, these are mostly still unpublished as the typical interval from first filing to publication is 18 months. So we have yet to see most of what was filed in 2020 but it will be interesting when we can.

In the meantime, the IP systems have reacted in their own ways. Some disruption was unavoidable so there were originally a lot of suspensions and extensions of deadlines to help applicants but more recently things have normalised and the European Patent Office in particular has maintained an impressively consistent output.

Like other office workers, it seems patent examiners have got used to working at home, and increasingly even formal hearings are by videoconference.

These may not be quite the same as one's day physically in court but have the advantages of avoiding travel and widening participation. Necessity seems to have been the mother of invention even for patent attorneys.