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## Cuts in cancer research funding due to COVID-19

On Dec 8, 2020, Cancer Research UK (CRUK) announced cuts of £45 million to its research budget. The charity has been badly affected by the COVID-19 pandemic, which forced the cancellation of fundraising events and the suspension of trading at the 600 CRUK shops across the country. Earlier this year, CRUK applied £44 million worth of cuts. It expects to make a further set of reductions in April, 2021. "We are planning for a managed decrease in spending on research from pre-COVID levels of £400–450 million to somewhere around £250 million", said Iain Foulkes, CRUK's executive director of research and innovation. CRUK is responsible for roughly half of publicly funded research into cancer in the UK.

The latest round of cuts amount to 12 fewer fellowships, 24 fewer 5-year research programmes, and 68 fewer projects, which are typically 3-year programmes. Several hundred researchers will have to look elsewhere for funding. CRUK has not funded any new clinical trials this year. The cuts that are projected for 2021 will hit the institutions supported by the charity. It is hard to imagine a scenario in which these measures do not have serious consequences.

"In the short-term, we are going to see an impact on patient outcomes because of the reduced number of trials; in the long-term, because we will not be able to fund as much discovery science, we are going to see our ability to develop new drugs diminish", Foulkes told *The Lancet Oncology*. He raised the prospect of a lost generation of cancer researchers—men and women deprived of the opportunity to make the breakthroughs that drive the field forward.

The Association of Medical Research Charities predicts that it will take more than 4 years for spending in the sector to return to pre-pandemic levels, and a decade to rebuild lost capacity and capability. The organisation

has called on the UK Government to invest £310 million in a Life Sciences Charity Partnership Fund to help with the recovery. Although the Medical Research Council (MRC) might be able to make up some of the shortfall caused by the contraction at CRUK, given that the MRC's total research expenditure in 2017–18 was £814 million, it is unlikely to be able to cover the £150 million of research funding that CRUK expects to cut.

The situation is similar outside the UK. The Canadian Cancer Society has predicted that the pandemic will cost them CA\$100 million in lost donations during the ongoing financial year, which amounts to more than half their budget. The American Cancer Society (ACS) has seen a decrease in revenue of around US\$200 million. "The pandemic struck during our peak fundraising season", said William Cance, Chief Medical and Scientific Officer at ACS. The charity has cut its expenditure on new research from \$100 million to \$50 million.

Government funding contributes a larger proportion of total expenditure on medical research in the USA than in the UK. The pandemic did not prompt the US National Institutes of Health (NIH) to cut funding for cancer research. "The NIH has been something of a backstop; they even provided supplemental awards to people who had lost fellowships", said Ross Levine, who runs a laboratory focusing on myeloid malignancies at Memorial Sloan Kettering Cancer Center (New York, NY, USA). Nonetheless, COVID-19 has put severe pressure on the academic sector.

"Many institutions are not hiring new faculty this year; after last year's freezes, that makes at least 2 years in which there has been a significant decline in recruitment", said Levine. "Some places are saying that unless you have an NIH grant, you cannot hire any external positions. I am also hearing a lot of stories about young investigators

who are seeing job offers either reduced or revoked." Levine is chair of the Committee on Scientific Affairs at the American Society of Hematology. As such, he helped to oversee a scheme offering \$1 million worth of bridge funding for researchers whose careers have been disrupted by COVID-19. "We were completely oversubscribed; I was astonished to see the need out there", he said.

Those in the early stages of their career are particularly susceptible to budget cuts. "When you are just starting out, that is when you are most dependent on institutional support", said Levine. "If we increase the disincentives to stay in academia, or to enter the field in the first place, we risk losing a lot of talent." Levine has particular concerns over the prospects for discovery science. "If you cannot get that extra 10% funding, then perhaps you will not be able to take that risk that might ultimately pay off", he explained. "That is a cost of the pandemic that we cannot begin to put a value on."

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For more on the **Cancer Research UK research funding cuts** see <https://www.cancerresearchuk.org/about-us/cancer-news/news-report/2020-12-08-cancer-research-uk-forced-to-cut-research-funding-due-to-covid-19>

For more on the **effect of COVID-19 on the Association of Medical Research Charities** see <https://www.amrc.org.uk/covid-19-the-risk-to-amrc-charities>

For more on the **effect of COVID-19 on the Canadian Cancer Society** see <https://www.theglobeandmail.com/opinion/article-during-this-crisis-cancer-patients-and-cancer-researchers-must-not-be/>

For more on the **effect of COVID-19 on the American Cancer Society** see <https://abcnews.go.com/US/american-cancer-society-eliminates-1000-jobs-amid-covid/story?id=71211646>