Essay

Cancer research collaboration between the UK and the USA: reflections on the 2021 G20 Summit announcement

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On June 10, 2021, the UK and USA released a joint statement about the visit of US President Joe Biden to the G20 Summit at the invitation of UK Prime Minister Boris Johnson. Within this statement (point 18) is the following: "We will convene the first US–UK Bilateral Cancer Summit and bring together researchers, patients, and other stakeholders to share ideas and identify opportunities for collaboration to accelerate advances in lifesaving approaches to cancer, which remains a leading cause of death worldwide."[1] On Nov 10, 2021, the UK Research and Innovation announced that this Summit would take place on Nov 13–14, 2021, "...to identify transformative research grand challenges and ways to resolve barriers to progress in cancer research."[2] Information arising from this meeting is scarce, but we know that several different domains from prevention and early detection to exploring social, economic, and environmental factors that contribute to health inequalities were on the agenda.

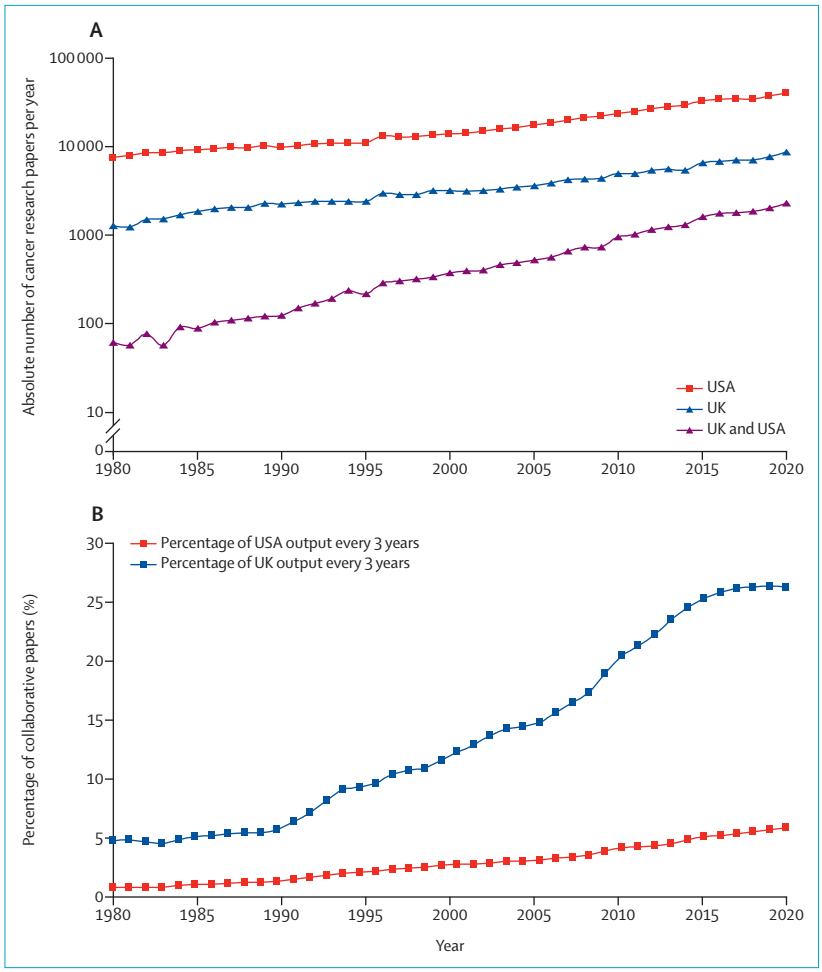

***Figure 1*: Trends in individual and collaborative outputs from the USA and UK**
(A) Absolute numbers of cancer research papers from the UK, USA, and UK–USA coauthored publications from 1980 to 2020. (B) UK–USA collaborative papers in cancer research as a percentage of each country's output from 1980 to 2020.

The UK and USA have nearly a two-decade history of formal cooperation originally built on the Good Friday Agreement on cancer research from 1999.[3] Since 1980, the UK and USA have seen substantial growth in their respective cancer research outputs as assessed by publication volume (figure 1A). In the past decade (2011–20), the UK's cancer research output (peer-reviewed publications) of 63 722 papers represented 9·4% of the total UK biomedical research output, and 5·7% of the world's total. Cancer research coauthored by researchers in the USA and UK has been increasing at a much faster rate than that of the individual countries, with an annual average percentage growth of 9·3% compared with the UK at 4·3% and the USA at 4·1%. The UK has been responsible for most of this collaborative increase, with nearly 26% of its total output in 2020 coauthored with collaborators in the USA compared with only 6% of US cancer research output coauthored with collaborators in the UK (figure 1B). This rate has increased substantially for the UK, particularly since 1990, but only slowly for the USA, reflecting a general pattern of increasing international collaboration by European countries.[4]

The UK and USA have major differences in their historical patterns for collaborative research with other countries (appendix pp 1–2). Overall, the USA collaborates less than the UK internationally. Between 2011 and 2020, only 36% of all USA cancer research papers were internationally coauthored, compared with 55% of total UK outputs. Although the USA is the largest collaborator with the UK by total volume of papers, there have been eight other countries with which the UK has major research collaborations (each with more than 10% of its total research output) in the past decade, including six countries in Europe (the Netherlands, Sweden, Spain, France, Italy, and Germany), Canada, and Australia. For the USA, the top collaborating countries were China (25·7%), followed by the UK (13·5%), Canada (13·3%), Germany (12·8%) and Italy (11·8%). The USA collaborates far less with Europe (excluding the UK), and relatively little with lower-middle-income countries.

UK and USA collaborative cancer research is focused on haematology–oncology and breast cancer