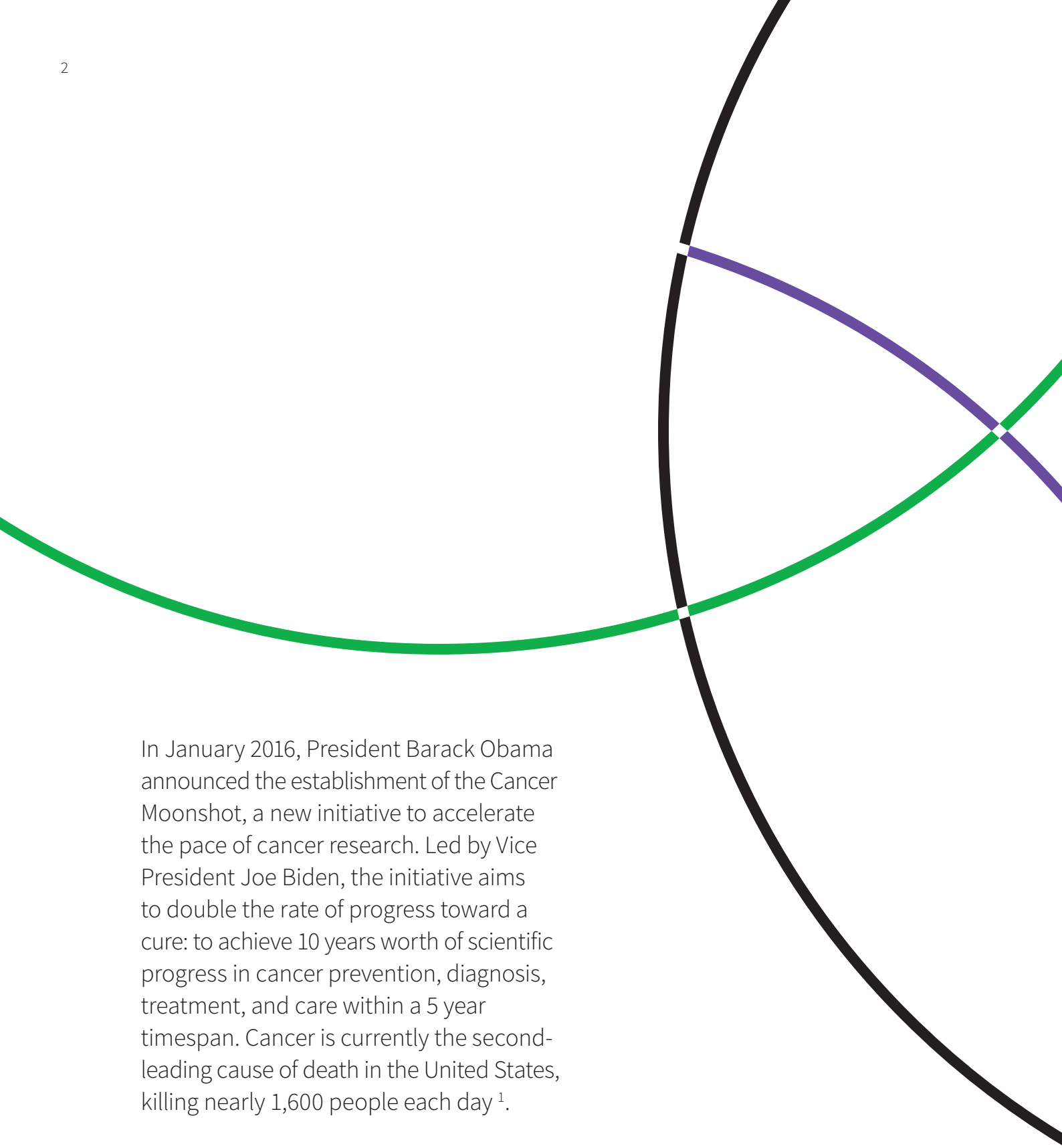
Understanding the Cancer Research Landscape

An Analysis of Cancer Immunotherapy Research

November 2016

Clarivate Analytics



In January 2016, President Barack Obama announced the establishment of the Cancer Moonshot, a new initiative to accelerate the pace of cancer research. Led by Vice President Joe Biden, the initiative aims to double the rate of progress toward a cure: to achieve 10 years worth of scientific progress in cancer prevention, diagnosis, treatment, and care within a 5 year timespan. Cancer is currently the second-leading cause of death in the United States, killing nearly 1,600 people each day [1].

Immunotherapy is emerging as a powerful weapon for cancer treatment, although it is not yet as widely used as surgery, chemotherapy, and radiation therapy. This report summarizes the current state of immuno-oncology research, using data and tools from Web of Science Core Collection, InCites Essential Science Indicators, and InCites Benchmarking & Analytics. All insights presented have been derived from one Web of Science Core Collection keyword search, which returned 42,221 results in August 2016:

1 Billion federal dollars have been pledged to accelerate cancer research via the Cancer Moonshot initiative.

"immuno oncol*" or (immunotherap* and (cancer or tumor* or neoplas* or oncol*))

More information about the resources and dataset used for analysis can be found on page 21.

10 years of progress in cancer prevention, diagnosis, treatment, and care will be made in a 5 year timespan.

Executive Summary

- Worldwide cancer immunotherapy research output has almost doubled since 2010.
- The United States consistently produces more cancer immunotherapy research than any other country. While Harvard and the VA Boston Healthcare System are leading producers of research output, Dana Farber Cancer Institute's papers have the highest impact.
- United States authors are increasingly collaborating with foreign authors in cancer immunotherapy. Collaborations with Spain yield the highest impact.
- Public-private partnerships resulting in immuno-oncology research are growing, but output remains low. When they do occur, these partnerships yield high impact research.
- Although the NIH funds the most immuno-oncology research, industry-funded papers achieve the highest citation impact.

1,600 people per day are killed by cancer in the United States.

[1] Lowy, D. R., & Collins, F. S. (2016). Aiming High—Changing the Trajectory for Cancer. New England Journal of Medicine, 374(20), 1901-1904. doi:10.1056/NEJMp1600894

Worldwide Cancer Immunotherapy Research Output Has Almost Doubled Since 2010

Covering international research back to 1900, the Web of Science Core Collection supports analysis of long-term trends over time, making it an ideal tool to assess whether a particular subject is growing or declining.

Using the results analysis tool, we observe a spike in immuno-oncology research output in 1991: 616 papers were produced, compared to 108 in 1990.

Between 2010-2015, research output nearly doubled, from 2,028 to 3,637 papers. As of August 2016, this year's output looks on track to continue this trend.

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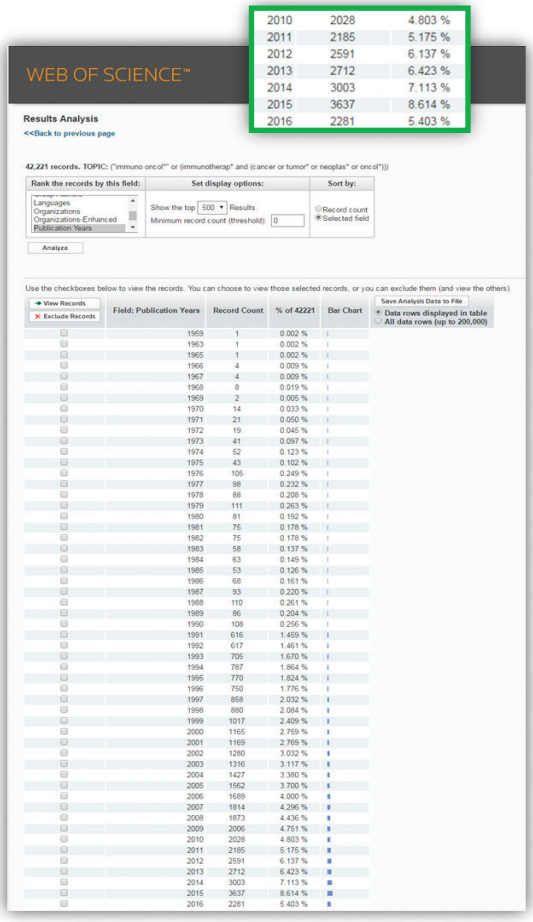
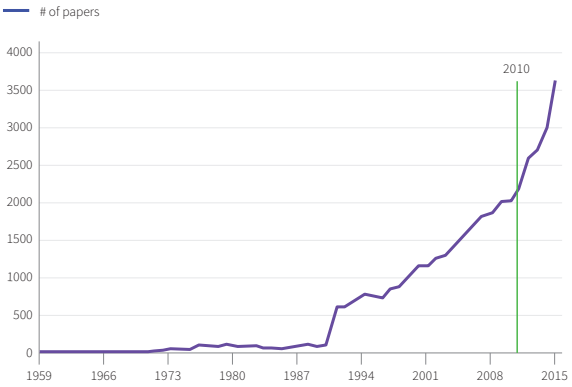


Cancer Immunotherapy Ouput Trends



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