

interest of completeness (and at the risk of tedium), I shall continue. Johannes Müller in the 1830s pioneered the microscopic analysis of malignancies, identifying tumors as composed of cells, and Rudolf Virchow in Berlin in the 1860s developed the theory of cancer as caused by local "irritations."¹⁹ Germans were pioneers of cancer transplant research,²⁰ and early in the development of the theory of dose-response latency (*Latenzzeit*).²¹ Germans were among the first to propose a major role for hormones in carcinogenesis²² and were early on aware of what is sometimes today called the "xenoestrogen hypothesis"—the idea that powerful petrochemical carcinogens such as methylcholanthrene may work by mimicking the body's natural hormones.²³ It was a Munich pathologist (Max Borst) who first classified tumors according to their histogenesis, the method used today by the World Health Organization to classify cancers.²⁴

The list goes on: Germans were the first to utilize tissue stains as chemotherapeutic agents (in 1922),²⁵ and were the first to inject thorotrast (thorium dioxide) into patients to improve the contrast in X-ray photographic plates (1928).²⁶ German geneticists were the first to show that colon cancer could be inherited as a dominant trait, and it was a German zoologist—Theodor H. Boveri—who first proposed that chromosomal abnormalities might be responsible for the onset of malignancies (1902).²⁷ Germany was the site of the first international congress of cancer research (Heidelberg and Frankfurt, in 1906)²⁸ and the first country to establish a permanent journal devoted exclusively to cancer research.²⁹ Germany pioneered the optical diagnosis of cancer, being home to the development of not just X-rays and the colposcope but also the rectal endoscope—a candlelit version of which was introduced in Frankfurt in 1807.³⁰ German was arguably, at least for a time, the *language* of international cancer research: in 1915, for example, when Katsusaburo Yamagiwa and Koichi Ichikawa announced their experimental production of coal tar cancer in laboratory animals, they published it *auf Deutsch*.³¹ Germans were also apparently the first to suggest that secondhand tobacco smoke might be a cause of lung cancer—in 1928.³²

German scientists in the mid-1930s elaborated on this scientific base. The Reich Anticancer Committee (Reichsausschuss für Krebsbekämpfung) established in 1931 was enlarged, and an ambitious new journal, the *Monatsschrift für Krebsbekämpfung* (Monthly journal for the struggle against cancer), published by the notoriously antisemitic J. F. Lehmann publishing house, was launched in 1933 to coordinate the anticancer effort. More than a thousand medical doctoral theses explored cancer in one form or another in the twelve years of Nazi rule; only diseases of the blood attracted more attention.³³ Cancer registries were established, including the first German registries to record cancer morbidity (incidence) and not just mortality (deaths). Efforts were made to strengthen prevention-oriented public health measures, including occupational safeguards, laws against the adulteration of food and drugs, bans on smoking, and programs to reduce the use of cancer-causing cosmetics, to name only a few.

Could Nazi anticancer measures have influenced postwar German cancer rates? The question is intriguing, given that Germany shows a fairly clear-cut decline in overall age-adjusted cancer mortality since the 1950s, when one would first expect the policies and practices of the 1930s to show up in cancer mortality and morbidity statistics. It is also possible, though, that measures taken with the goal of improving general health—the support for female athletics, for example, or the campaign to increase the consumption of whole-grain bread—may have had unintentional anticancer consequences. Other steps taken in consequence of Nazi goals may have had anticancer effects—the pronatalist movement, for example, which increased the number of women having babies and lowered the average age of conception—though the biggest factor of all may have been the war itself, as tobacco rationing and low-fat, near starvation diets became the order of the day, along with other "lifestyle" changes now known to reduce cancer risk.

How does one interpret such possibilities? Could one of the most murderous regimes in history actually have succeeded in lowering cancer rates for certain segments of its population? Who benefited from such policies and who suffered?