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Dan Fagin heads the science, health and environmental reporting programme at New York University. His next book is on gene-environment interactions in cancer

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The secret History of the war on Cancer

Devra Davis

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IN THE highly charged realms of toxicology and environmental epidemiology, every generation seems to produce its own Wilhelm Hueper. He was a doctor who migrated to the US from Germany, having served in the first world war. His pioneering research into the connection between industrial chemicals and diseases such as cancer led to his 1942 textbook, *Occupational Tumors and Allied Diseases* - the first attempt to consolidate medical knowledge of workplace diseases into a single volume.

Hueper went on to become the first head of the environmental cancer section of the National Cancer Institute, and in 1962 he received the ultimate accolade for an environmentally minded scientist at the time: a favourable mention in Rachel Carson's seminal best-seller, *Silent Spring* .

But Hueper's career shows the peculiar difficulties of conducting environmental health research. Just north of Washington DC in the National Library of Medicine is a remarkable document: his unpublished autobiography. In its 312 pages, he describes his long career (he died in 1979, aged 85) as a series of bloody battles with DuPont and other companies bent on what he describes as his "forceful removal from the scene by various types of assassination".

Industry scientists, he wrote, accused him of being a Nazi as he had sought a research post in Hitler's Germany.

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When that charge didn't stick, they called him a Communist sympathiser. This industry pressure, Hueper says, eventually prompted the National Cancer Institute to bar him from doing occupational studies, and to "demolish" its environmental cancer section in 1964, when he retired under duress.

Devra Davis has made many enemies, too. An epidemiologist at the University of Pittsburgh Cancer Institute, Davis is her generation's strongest advocate of the idea that synthetic chemicals are a seriously under-recognised cause of cancer. Among scientists, Davis is best known for her epic battles with the legendary British epidemiologist Richard Doll.

His landmark studies showed alcohol and especially smoking to be important causes of cancer - but not, Doll insisted, most industrial chemicals. Davis's counter-claims were cuttingly dismissed as "old junk" and "quite uninformative" by Doll and his long-time collaborator Richard Peto in a 1990 *Science* interview.

The Secret History of the War on Cancer is Davis's second book, and it is even more caustic than its predecessor, *When Smoke Ran Like Water*. A finely honed sense of outrage isn't the only thing Davis shares with Hueper. She also admires the early 20th-century German doctors who relied on meticulous case studies of smokers, miners and factory workers to convince their governments - including Hitler's Reich - to limit such exposures.

Since then, there has been depressingly little progress, Davis argues, and she makes a persuasive case that the fault lies with the chemical industry and the scientists in their pay - especially Doll. No fewer than seven of the book's 15 chapters discuss his apparent misdeeds. According to Davis, these include drastically underestimating the risks of exposure to medical radiation, asbestos and vinyl chloride, a key ingredient in plastics. She notes that Doll benefited from consultancies with many companies whose products and workers he studied.

Davis's white-hot prose burns fiercest, though, when she attacks not Doll but the system he helped create; one where most of what we know about cancer and the environment is generated by private interests selling either dangerous products or treatments for the diseases they can cause. The observations of working doctors are ignored in favour of complex animal models and population-based studies, with easy-to-obfuscate results. What is missing, says Davis, is common sense, seeing what is in front of us even when definitive proof of harm seems just out of reach.

It is a shame Doll is not alive to attempt a rebuttal, because Davis's case is damning indeed.

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