Wars leading to the War on Cancer

The column tells the story. Conversations with Dr. ET published in Nuclio Media by Brian Fitzgerald is where we interpret what it means—for the clinic, the ledger, and the patient.

A mid-century room where military language gives fear a usable shape.

> *This Time Machine is not an escape from the present. It is a way to see how the present was made — and how it might be remade.*

Moving the needle to threading it

Chapter 1, Column 2

Who Decided Cancer Was a War?

Last week we ended in a museum, with a sentence I still carry: military language gave fear a usable shape. This week the Time Machine stops in 2026, in the middle of a few wars.

Kansas City. At the Liberty Memorial, the World War I archives give a glimpse of warfare and its effects on society.

Ypres, Belgium. April 22, 1915. German forces released 160 tons of chlorine gas across the front — the first large-scale poison gas attack of the First World War. War now asked medicine a new question: what do these chemicals do inside a body over time?

Bari, Italy. December 2, 1943. The John Harvey sank with its secret cargo of mustard. Lieutenant Colonel Stewart Francis Alexander traced the survivors' delayed illness back to the mustard itself — marrow and lymphoid tissue suppressed by a weapon. His report was classified at once, and U.S. records stayed classified until 1959.

The heart of it was the men. Sailors were pulled from a harbor slicked with oil and mustard, their clothes soaked through with the mixture. The injury arrived slowly — eyes swelling shut, skin blistering beneath wet uniforms, men who had seemed stable dying without warning. Their charts read only "Dermatitis N.Y.D." — not yet diagnosed — because the cargo that had poisoned them was secret even from the doctors trying to save them.

Alexander refused to leave it unnamed. Called to Bari, he moved from bed to bed, studied the charts, and plotted where each man had been in the harbor until the pattern pointed back to a single ship — the John Harvey. Divers brought up fragments of fractured American mustard bombs, and he had his answer: the poison was the Allies' own. He reported it on December 11, knowing it would be classified. The science that followed — marrow suppressed, white cells falling — did not begin in a laboratory. It began in those wards, with a doctor determined to trace the mustard to its source.

The war on cancer does not begin with a speech. It begins with a disaster.

Start, as we did last week, with Hodgkin. In 1832 he described six or seven cases of enlarged "absorbent glands and spleen." In 1856 Samuel Wilks, his successor at Guy's, described the same disease, unaware Hodgkin had been there first. Shown his predecessor's paper, Wilks did something rarer than discovery: in

1865 he gave the disease Hodgkin's name. A disease needs a name before it can have a trial. In 1926 Herbert Fox retrieved the Gordon Museum specimens, sectioned them, and confirmed Hodgkin's disease in three.

Then the weapon became a treatment. In 1943 Louis Goodman and Alfred Gilman treated six patients with Hodgkin disease and lymphosarcoma with nitrogen mustard, HN2 — the first chemotherapy trial — published only in 1946, under wartime secrecy.

Its success spurred a national screening effort and a family of alkylating agents still in use: mechlorethamine (Mustargen), later part of MOPP; chlorambucil (Leukeran); melphalan; cyclophosphamide and ifosfamide.

One chemical became a drug class, and a system for making more. The breakthrough was never the single drug.

Vietnam reversed the Bari lesson. Agent Orange — contaminated with TCDD, a dioxin — asked what a wartime chemical had done to those exposed: war causes cancer, too. The National Academies graded the evidence in tiers.

Who paid for the war? War, declared or not, needs a budget—and mobilization is what the metaphor made possible. In 1937 Franklin D. Roosevelt signed the National Cancer Institute Act, authorizing $700,000 a year. In January 1971 Richard Nixon asked for $100 million; on December 23 he signed the National Cancer Act. Follow the money forward: NCI funding stands at $7.35 billion in 2026—before the American Cancer Society, philanthropy, and industry.

"The time has come in America when the same kind of concentrated effort that split the atom and took man to the moon should be turned toward conquering this dread disease," Nixon said.

The first honest after-action report came from inside the war. Dr. John C. Bailar judged progress by age-adjusted mortality for all cancers combined — and concluded:

"We are losing the war against cancer, notwithstanding progress against several uncommon forms of the disease, improvements in palliation, and extension of the productive years of life."

His answer was not surrender but a shift—from treatment to prevention. Prevention has no parade.

So where does the count stand? In 1968 there were 318,547 cancer deaths. In 2026, of 2,114,850 cases, 626,140 will die, even as more than 18 million survivors live among us. Yet the weapons have grown kinder and more exact:

- **Surgery:** radical → minimally invasive.
- **Radiation:** cobalt → EBRT → proton → RadioRx.
- **Drugs:** ChemoRx → RLTx, ADC, BiTe, cell/gene therapies.
- **Next frontier:** AI—more precise, less toxic.

Bletchley Park, 1939–45. Alan Turing led the work against German naval Enigma, designing the Bombe — building on Polish work — and developing Banburismus, a statistical way to search vast possibilities without trying them all.

In 1950 Turing asked it out loud — "Can machines think?" — and offered the imitation game we now call the Turing test. The AI reading scans descends from that hut: cancer is a pattern hidden in noise.

Lessons from the current wars, in Ukraine and Iran—"artillery, drones, hypersonics and glide bombs," as Dr. Jeff Colyer wrote in the Wall Street Journal on May 31, 2024, about the wounds he treated in Ukraine. From uranium stockpiles to radioligand therapies, the line still runs. And now drones—the "precision tool"—in the era of precision medicine.

That is not a lost war, and not a won one. The tradeoffs arrive with the success—chronic illness, and care after treatment was supposed to end the story.

When victory is the only story, living well can sound like surrender. Living well is not surrender.

History matters — from Bari to a drug class; the warning in the Agent Orange ledger; the machine from Bletchley; and the history of the N of 1: history of present illness, past medical history, family history, social history. The war gave us words, drugs, and a budget. The patient's history tells us what to do with all three.

Next week: "The Moonshots"—Washington in 1971, as a promise becomes an institution, a budget, and a metaphor.

Sources

- NPR, December 23, 2021, on fifty years since the National Cancer Act of 1971.
- Veterans Affairs Canada, "2nd Battle of Ypres," April 22–May 25, 1915. https://www.veterans.gc.ca/eng/remembrance/wars-and-conflicts/first-world-war/battle-of-ypres?wbdisable=true
- Goodman et al., JAMA, 1946—the 1943 nitrogen mustard series, delayed by wartime secrecy.
- Bailar, John C., N Engl J Med 1986; 314:1226–32.
- DeVita, V. T. Jr., and Rosenberg, S. A., N Engl J Med 2012; 366:2207–2214.
- National Cancer Institute Act, August 5, 1937 (Public Law 244, 75th Congress); National Cancer Act of 1971, December 23, 1971.
- Hodgkin, 1832; Wilks, Guy's Hospital Reports, 1865; Fox, 1926, on Reed's 1902 criteria. See Stone, M. J., "Samuel Wilks: The 'Grand Old Man' of British Medicine," Proc (Bayl Univ Med Cent) 2010. https://pmc.ncbi.nlm.nih.gov/articles/PMC2900981/
- National Academies, Veterans and Agent Orange series, summarized in American Cancer Society, "Agent Orange and Cancer Risk." https://prod.cancer.org/content/dam/CRC/PDF/Public/6888.00.pdf
- Turing, A. M., "Computing Machinery and Intelligence," Mind, 1950. On Colossus and Tommy Flowers: Institution of Engineering and Technology, "Colossus." https://savoyplace.theiet.org/100-ideas-gallery/100-ideas/colossus/
- History.com, "How a WWII Disaster — and Cover-up — Led to a Cancer Treatment Breakthrough," on Bari, the John Harvey, and Alexander's investigation. https://www.history.com/articles/wwii-disaster-bari-mustard-gas
- Colyer, Jeff, Wall Street Journal, May 31, 2024. https://www.wsj.com/opinion/why-you-should-be-alarmed-by-the-wounds-i-treated-in-ukraine-e93b538f