

OBITUARY



Remembering Donald Pinkel, MD: Acute lymphoblastic leukaemia pioneer September 7, 1926 –March 9, 2022

William E. Evans¹ and Ching-Hon Pui²✉

© The Author(s), under exclusive licence to Springer Nature Limited 2022

Leukemia (2022) 36:1444–1445; <https://doi.org/10.1038/s41375-022-01562-9>



Dr. Donald Pinkel, ostensibly the first investigator to use the word *cure* in describing results of a clinical trial in children with acute lymphoblastic leukemia (ALL), died on March 9, 2022, at the age of 95. Don was born in Buffalo, NY and received his undergraduate education at Canisius College and graduated from the University of Buffalo School of Medicine in 1951. During his residency training at Buffalo Children's Hospital, he treated several children with leukaemia, inspiring him to seek training as a pediatric oncologist. After post-doctoral training at Memorial Sloan Kettering Cancer Centre, he served in the US Army as a physician. There he contracted polio whilst caring for children with the disease at Fort Devens in Massachusetts. After a protracted hospitalization, he completed a post-doctoral fellowship at Harvard with Sidney Farber. In 1956, he was recruited to Roswell Park Cancer Centre in Buffalo to start a pediatric oncology clinic.

In 1961 the St. Jude search committee contacted Dr. Pinkel about becoming the Founding Director of St. Jude Hospital in Memphis, TN. He accepted the offer in July 1961 and became director (CEO) at the age of 34, when St. Jude was nothing more than actor and Hollywood producer Danny Thomas' dream and a hole in the ground in downtown Memphis. He was employee #1. Don embraced Danny's unconventional business plan, which had four pillars: (1) Focus on childhood cancer, a death sentence in 1962; (2) Site St. Jude in Memphis, not exactly a rich city with well-

established medical centers; (3) Open the hospital to children of all races, colors, and creeds, rare in those days; and (4) Give free care; considered an unsustainable model. A 1962 St. Jude brochure for new patients stated: *Be assured that we will make every effort to fulfill your highest expectations regarding hospital care and treatment and to give your child full benefits of scientific medicine.* And under Dr. Pinkel's stewardship scientific medicine prevailed.

Don Pinkel had the courage to tackle ALL, the most common cancer in children, when many believed cure was impossible. Early pioneers like Don were criticized and told to let these children die in peace. Don had the courage to push on and had the vision to develop a comprehensive approach to leukaemia treatment he called *Total Therapy*, components of which included remission induction, consolidation, continuation, and central-nervous-system (CNS)-directed treatment. These components remain the backbone of ALL therapy today, more than one-half century later. Pinkel created a culture of collaboration and inclusion because he knew curing childhood cancer was a huge challenge that would require innovations from every corner of St. Jude.

Dr. Pinkel was *old school*, expecting everyone to work 7 days a week and he led by example. He held grand rounds at 10 am on Saturday mornings, giving everyone time to see patients in the clinic or make inpatient rounds before breaking for coffee and grand rounds, then back to work of course. He was determined and driven, never letting his polio slow him down. He had a big smile and was quick to offer a pat on the back, but he could beam a stern look if he felt you were not giving your best. He knew we could push cure rates higher if we worked hard and smart, and felt there was no time to waste.

In 1971 Don Pinkel and his colleagues published results of *Total Therapy V* reporting a cure rate of 50 percent in contrast with the 4 percent when St. Jude opened in 1962. [1] For this work, Dr. Pinkel received the 1972 Lasker Clinical Medical Research Award. The success of *Total Therapy V* put St. Jude on the map as a new force in childhood cancer, only a decade after it opened. But Don knew that curing the other 50 percent of children was going to be an even bigger challenge and he encouraged everyone at St. Jude to join the fight.

And that's not all. Don Pinkel had the wisdom to not only focus on increasing cures but also on improving quality-of-life. Don was the first investigator brave enough to stop all therapy after 2.5 years of continuous complete remission, reporting his success in

¹Department of Pharmaceutical Sciences, St. Jude Children's Research Hospital, Memphis, TN, USA. ²Departments of Oncology, Pathology and Global Pediatric Medicine, St. Jude Children's Research Hospital, Memphis, TN, USA. ✉email: ching-hon.pui@stjude.org

Received: 22 March 2022 Revised: 24 March 2022 Accepted: 29 March 2022

Published online: 21 April 2022

1974. [2] Don Pinkel left St. Jude in 1973 to become chief of pediatrics in Milwaukee, later establishing the Midwest Cancer Centre at Milwaukee Children's Hospital. He felt that 10 years at the helm was long enough for a place that wanted to remain at the cutting edge. He continued to build pediatric practices, serving as a director at City of Hope Hospital in Duarte, California, and St. Christopher's Hospital in Philadelphia. In 1985, he joined M.D. Anderson Cancer Centre in Houston where he developed clinical trials using biological co-variables including genotype and immune phenotype to direct therapy with the aim of what we term today precision therapy. [3] Another goal was to eliminate the use of prophylactic CNS radiation, a goal achieved a decade later at St. Jude. He retired in 1994, but continued to teach in Houston until 2002, when he moved to San Luis Obispo, California, and became an adjunct professor at California Polytechnic State University.

We were fortunate to work with Dr. Pinkel for over 40 years. He stayed engaged in the field of childhood leukaemia throughout his life and we attended many meetings together developing a lasting friendship and an enduring respect for his leadership in curing childhood ALL. Don never lost his keen intellect nor tempered his constructive feedback on contemporary research in the field. Every time children and their clinicians sing *no more chemo* at the completion of therapy at St. Jude they are standing on Dr. Pinkel's shoulders and carrying his legacy forward. It is fitting that the tallest building on campus is the Donald Pinkel Research Tower, the only building at St. Jude named for an employee. Dr. Pinkel reached for the sky and inspired those around him to do the same. He created a powerful culture and laid a robust foundation that St. Jude Children's Research Hospital continues building on today.

Dr. Pinkel married Marita Donovan, a Buffalo native, in 1949 and had nine children. After divorcing he married Dr. Cathryn Howarth in 1982. They had one son. In addition to one surviving sister and nine surviving children, Dr Pinkel leaves sixteen grandchildren, five great-grandchildren, many nieces and nephews, his wife Cathryn and tens of thousands of children worldwide cured of ALL. A favorite quote of Danny Thomas was "To cure one child in

Memphis is to cure a thousand worldwide." Don Pinkel saved thousands of lives. He will be greatly missed and remembered for his outstanding contributions.

REFERENCES

1. Aur RJ, Simone J, Hustu HO, Walters T, Borella L, Pratt C, et al. Central nervous system therapy and combination chemotherapy of childhood lymphocytic leukemia. *Blood*. 1971;37:272–81.
2. Aur RJ, Simone JV, Husto HO, Verzosa MS, Pinkel D. Cessation of therapy during complete remission of childhood acute lymphocytic leukemia. *N Engl J Med*. 1974;291:1230–4.
3. Manera R, Ramirez I, Mullins J, Pinkel D. Pilot studies of species-specific chemotherapy of childhood acute lymphoblastic leukemia using genotype and immunophenotype. *Leukemia*. 2000;14:1354–61.

ACKNOWLEDGEMENTS

Supported by the U.S. National Cancer Institute grant CA21765, and the American Lebanese and Syrian Associated Charities (ALSAC).

AUTHOR CONTRIBUTIONS

WEE and C-HP contributed equally to writing, editing and finalizing this work.

COMPETING INTERESTS

The authors declare no competing interests.

ADDITIONAL INFORMATION

Correspondence and requests for materials should be addressed to Ching-Hon Pui.

Reprints and permission information is available at <http://www.nature.com/reprints>

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.