

The ROCKWOOD Miller

Local man helped make Polio history



Alex Kanarek

By: Vivien Fleisher

Alex Kanarek has enjoyed a successful career as a virologist, part-time thespian, and happily married father of two. But it was his good fortune to have graduated from England's Cambridge University in virology the same year Jonas Salk published his ground-breaking work on the polio vaccine that made his life especially charmed. Kanarek was part of the team hired to scale up production of the vaccine in order to inoculate British schoolchildren in the 1950's. This endeavor in both North America and Britain involved a lot of innovation and ups and downs—some of them lethal. But as Kanarek explains, the path from Salk's discovery in 1954 to now has been so profound, we scarcely know the terror that stalked families then, second only to nuclear warfare. Striking mainly in summer, shutting down swimming pools, it could result in paralysis or lung failure that left victims dependent on iron lungs.

Kanarek intended to work in plant virology, having won the biology prize at age 17 which gained him entry to the Royal College of Science. After graduating at 20 in botany, he went on to do virus research on plants. His professor knew the director of a Cambridge research lab, when little was known about human viruses, making his PhD work on plant viruses ser-

endipitous, as they had similar properties to polio. When he graduated in April 1954 and Salk published his trials, he walked right into a job with Burroughs-Wellcome, one of two pharmaceutical companies with vaccine facilities that received contracts from the British government. Kanarek was offered positions at both, but Glaxo had nowhere near the appeal of Burroughs, a progressive company in the south of London.

Polio virus is carried by sewage and contaminated water, but young children often had the benefit of their mother's antibodies, confining the virus to their gut. For those without that benefit, it could escape into the bloodstream, spread to nerve cells in the brain and spinal column and affect muscles controlling ambulation and breathing. While not all who contracted the disease suffered permanent harm, those who did were confined to wheelchairs and iron lungs. Kanarek's focus was inactivation experiments, where he had to kill enough of the live vaccine—derived from monkeys—so it wouldn't harm people, yet be strong enough to immunize. In one tragic case, a vaccine made by U.S. Cutter labs caused paralysis. As things progressed, scientific problems gave way to engineering ones, and Kanarek designed a very sophisticated stainless steel tank for production.

In the end, the vaccine that Kanarek and his colleagues worked on was used for only three years; Albert Sabin developed the oral vaccine in 1961, and the rest is history. Kanarek went on to other related work, eventually being head-hunted by Canada's Connaught labs in the late 1970's. But for today, with the World Health Organization confident we are on the cusp of eradication worldwide, Kanarek says it was the highlight of his career to have played a part.

WORD IN THE VILLAGE

with Vivien Fleisher

Some residents have voiced concerns over water quality in town. Do you have concerns?



Tim Morse: "No. We have hard water, no water softener. I like the water the way it is. No complaints."



Melanie Running: "We've had to put a water softener and a reverse-osmosis filter in just to drink water. It just purifies everything."



Mike Bousfield: "Nope. I turn the tap on, water comes out. I filter it at home for drinking and stuff like that, but other than that I've never had any issues. Every now and again you get a bit of brown water, but that's common when you live in an old town."



Michelle Webb: "I have had. Sometimes you get a smell, usually when there's lots of rain. And I know that's normal. I think there's a high iron content. We do use a Brita, which is fine. I think we're using the water from Guelph, are we not? But I'm not extremely concerned with the quality."

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