

WHO BELLED THE CAT?

by

DENNIS M. CONNAUGHTON

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“Who will bell the cat?” is a fairly common phrase that harks back to a fable attributed to Aesop titled “The Bell and the Cat.” The fable tells the story of a group of mice trying to protect themselves against the threat of a cat that was attacking and killing them. One mouse in the group suggests tying a bell around the cat’s neck to warn them of the approaching marauder. However, another mouse asks who will volunteer to tie the bell to the feline? All of the mice come up with excuses for why they cannot do it. Not one was brave enough to bell the cat.

In the early 1990s, I had the privilege of writing a biography of Dr. Warren Cole who headed the department of surgery at the University of Illinois College of Medicine here in Chicago for 30 years, from 1936 to 1966. The book was commissioned by the Warren and Clara Cole Foundation and distributed by the University of Illinois Press.

Dr. Cole made his name as a research scientist early in his career when he was a surgical resident at Washington University School of Medicine in St. Louis with the discovery of cholecystography in 1924, along with his mentor and chief of surgery Dr. Evarts Graham. Oral

cholecystography involved administering a contrast agent by mouth that helped visualize the gallbladder on x-rays. It was used to diagnose gallbladder disease. Newer diagnostic imaging techniques, such as ultrasound and CT scans, are now used over oral cholecystography.

Cole also made a key contribution to cancer surgery when, based on his clinical research, he found that cancer cells could be shed into the patient's bloodstream when a surgeon excises a malignant tumor. He then developed a widely followed protocol of administering chemotherapy during and after surgery to destroy the cancer cells and prevent them from spreading to other parts the body.

One of the most interesting chapters in Cole's life, for me at least, was his role in the krebiozen scandal in the 1950s and early 1960s. Krebiozen was a substance extracted from the blood of horses that had been inoculated with a bacterium called *Actinomyces bovis*. Krebiozen's discoverer, the somewhat mysterious Dr. Stevan Durovic, a physician and former assistant professor of medicine at the University of Belgrade, Yugoslavia, believed the substance could be a cure for cancer.

During World War II, Yugoslavia was attacked and taken over by the Germans and the Italians. Durovic was sent to a concentration camp, but was released in accordance with certain terms of the Geneva Convention relating to imprisoned physicians. He and his industrialist brother, Marco, fled to Buenos Aires and established the Instituto Biologica Droga, or Biological Drug Institute, where Stevan continued his extensive cancer research, including studies of the effects of krebiozen in dogs and cats with cancer.

Durovic believed that *Actinomyces bovis* bacteria stimulated the reticuloendothelial system — an important part of the immune system that helps our bodies identify and destroy foreign substances, such as bacteria and viruses. In response to the bacterial stimulation, the immune system produced a substance that Durovic believed could control malignant cell growth. That substance he called krebiozen.

In 1949, he brought ampules of krebiozen to the United States where he met with prominent cancer researcher Dr. Andrew Ivy, who was then vice-president at the University of Illinois responsible for the College of Medicine as well as the schools of dentistry and pharmacy. Ivy's cancer

research led to his appointment as executive director of the National Advisory Cancer Council and a director of the American Cancer Society.

In 1947, Ivy had written an article describing his hypothesis that the human body produces substances that regulate cancer cell growth and that isolating these substances represented the future of cancer research and therapy. Ivy and Durovic were thus of like mind.

Durovic told Ivy he had given krebiozen to 12 dogs and cats with cancer and that within six months, seven of the animals were cleared of cancer and the remaining five showed signs of improvement. Without seeing manufacturing records or knowing what was in the ampules Durovic brought him, Ivy began his clinical research on krebiozen by injecting himself and an associate with krebiozen to determine if it was safe in humans. He then began treating cancer patients with the substance, but only patients with advanced cancer who were close to death.

In March of 1951, Dr. Warren Cole, the subject of my biography, received a letter from Dr. Andrew Ivy that contained a startling announcement. The letter, dated March 16, reads as follows:

“During the past 18 months Doctor Stevan Durovic of Yugoslavia and I have been investigating the effectiveness of a substance called Krebiozen on malignant tumors. The substance was discovered by Doctor Durovic.”

The letter read further, “The substance is extracted by a chemical process from the blood serum of a horse several weeks after the horse has been injected with a substance which, as is commonly stated, stimulates the reticuloendothelial system.

“Up to January 1, 1951, 22 patients have been treated and observed long enough for us to believe that a preliminary report of our observations to a limited group of physicians and a group of lay persons, who have been connected in some way with our study, is appropriate and warranted.

“It is believed that we have observed favorable results in 20 of the 22 patients, and we are positive that the substance is *per se* essentially non-toxic in animals, and produces *per se* no undesirable side reactions. In

view of the pathological anatomy of cancer, we have used the substance with caution in patients with internal cancer.

“It is my opinion that the substance merits a thorough clinical study and investigation, since I believe it possesses much promise in the management of the cancer patient.

“With this idea in mind several physicians, who direct much attention to the management of cancer patients, are being invited to a meeting at which our observations will be presented and a document, which provides our observations in considerable detail, will be distributed.”

The meeting was held in the French Room at the Drake Hotel on March 26, 1951.

The invitation was odd in a number of ways. First, Ivy was ready to spring his news at a public meeting without having published his research in any medical journal and without having discussed his research with either Dr. Cole, who was at that time involved in cancer studies, or Dr. Danely Slaughter, head of the cancer clinic at the University of Illinois. Second, Ivy's invitation

neglected to mention that the Drake Hotel meeting was being held not only for cancer doctors but also for drug company executives, politicians, prominent businessmen and newspaper reporters.

Ivy proved to be a shrewd manipulator of the media and a smooth politico. As vice-president of a state-funded university, he had to be savvy in the ways of state politics, and as the top administrator at a public university medical center, he had to be polished at public relations. Along with Dr. Cole, those who attended Ivy's meeting were wealthy banker David Rockefeller, U.S. Senator Everett Dirksen, Chicago Mayor Martin Kennelly, pharmaceutical executive J. J. Lilly, and Park Livingston, president of the board of trustees of the University of Illinois. And perhaps most important, reporters from the Chicago dailies were there, eager for a story.

The brochure that Ivy handed out at the Drake Hotel described the hypothesis driving krebiozen research.

Durovic's hypothesis was that every living cell contains a regulator of its growth. This regulator he called krebiozen. If krebiozen is absent or deficient the cells grow uncontrolled.



When reticuloendothelial cells are stimulated, krebiozen, which is not present in the blood under normal circumstances, is released and can be extracted from blood plasma.

Durovic further hypothesized that if krebiozen is present in blood, the cells in early stages of malignancy will be normalized and those in advanced stages of malignancy will be killed or damaged.

Durovic's hypothesis seemed to confirm Ivy's theory that healthy humans and animals have a natural anti-cancer substance in their blood. Perhaps that explains Ivy's whole-hearted endorsement of Durovic and krebiozen. After all, Ivy was a respected research scientist and noted administrator. He had even worked with the National Cancer Institute to establish guidelines for testing potential anti-cancer drugs. It is doubtful that Durovic would have gotten any attention for his enigmatic substance if Ivy had not placed his name and reputation on the line to back widespread clinical trials of krebiozen, which he did at the Drake Hotel meeting.

Ivy claimed that krebiozen halted tumor growth — and in some cases even melted tumors away — and that it enhanced the quality of life by easing pain, aiding appetite, allowing patients to sleep better, lengthening life, and imparting a sense of well-being. The brochure he passed out at the Drake Hotel meeting contained glossy photographs of cancerous tissue and tumors being measured to show shrinkage, along with the words of 22 patients telling how they were near death until they took krebiozen. Some of the patients were present at the meeting to offer further testament to the drug's power.

Despite the unusual way that the discovery of krebiozen was announced, the press ate the news up and spit it out in headlines across the nation and around the world. According to Patricia Spain Ward, campus historian at the University of Illinois in Chicago, “Journalists present at the fateful meeting at the Drake Hotel quickly supplied the word cure, which Ivy had studiously avoided.”

It was a compelling story. Here was a new drug supported by a

prominent cancer researcher that offered hope to cancer patients diagnosed as terminal and those with advanced cancers for whom there was little hope. The news spread rapidly and physicians and patients were eager to try it.

After the Drake Hotel meeting, cancer research centers and universities around the country attempted to confirm the results reported by Dr. Ivy. Nine institutions found no evidence of an effect of krebiozen on the cancer patients they studied.

Preliminary results in another hospital suggested that the drug had some activity in the patients it studied, but with continued study, the investigators found no evidence of an important effect of the drug on cancer and they discontinued the study.

Because Ivy had not consulted anyone at the U. of I. prior to his announcement, the newspaper reports “struck the College of Medicine like a thunderbolt,” historian Patricia Ward wrote. “In Chicago and downstate, the University was totally unprepared for the ensuing deluge of telephone calls, telegrams, cablegrams, and letters that poured in from physicians and from desperate cancer

patients and their families.”

But while the press and the public were lured into a belief in the power of krebiozen, the medical community was not nearly so enamored. On May 15, 1951, an editorial appeared in the learned *Proceedings of the Institute of Medicine*, which read in part: “Medical science has established procedures and standards of reporting progress of experimental and clinical results. The announcement in Chicago, March 26, 1951, of krebiozen, described as an 'important step' toward a final goal of chemotherapy of cancer, ignored these procedures and standards. There was no publication in a medical or scientific journal; there was no presentation made before a learned society. Instead, krebiozen was announced to a mixed group of physicians, medical educators, public officials and representatives of the press.

“The information provided on this unusual occasion met few of the accepted criteria of medical reporting. One of the essentials when a new biological agent is presented is a clear account of the technic of its preparation or isolation and, when possible, an exact

and complete description of its composition. No such information was provided as to krebiozen, except that it was separated from the serum of a horse after 'stimulation' of its reticuloendothelial cells.

“Its method of preparation and its composition are expressly stated to be secret. The booklet distributed at this meeting, which purported to give clinical details on 22 cases, was gravely deficient for the purposes of evaluation,” the editorial noted.

Historian Patricia Ward has an explanation for why Ivy bypassed all the conventional medical means of unveiling new research. “Ivy later explained,” she said, “that he had chosen this time and manner to announce krebiozen because Illinois Senator Paul Douglas, long a close friend, had said Ivy must quickly produce some dramatic public demonstration of krebiozen's potential so that Douglas could persuade Congress to grant citizenship to the Durovics, Stevan and his brother Marco, whose visas would soon expire.” After the news of krebiozen hit the public press, Senator Douglas easily passed a special act of

Congress that granted citizenship to the Durovics.

Following the announcement to the world of krebiozen's wonders, the drug's promoters formed a non-profit foundation, the Krebiozen Research Foundation, and made Dr. Ivy its president. The foundation's stated purpose was “to foster research on krebiozen and to investigate other human ills, and to remove any reason for the suspicion of a primary commercial motivation in the investigation of krebiozen.” Meanwhile, however, the Durovics, backed by a millionaire Argentine landowner, set up a pharmaceutical company in Argentina to produce the drug.

While Ivy and his cohorts continued testing krebiozen on cancer patients through their research foundation, the American Medical Association began an independent evaluation of the substance and Ivy's claims for it. The results were published in the *Journal of the American Medical Association* on October 27, 1951, under the title “Status Report on Krebiozen.” For the evaluation, four cancer specialists around the country used krebiozen to treat 100 patients following the protocols established by Ivy and Durovic. The specialists

found that krebiozen had no effect on the patients.

In response to the *JAMA* article, the president of the University of Illinois, George Stoddard, called for a meeting with medical faculty members to decide what to do about Ivy and his research. Dr. Cole could not attend that meeting, but he advised Stoddard to wait until after the Chicago Medical Society met to decide what to do about Ivy.

Stoddard took Cole's advice and adopted a wait-and-see attitude. The Chicago Medical Society did indeed censure Dr. Ivy and suspended him for three months, as of November 12. But Ivy did not resign from the university. His defense against the AMA report was that it was not based on controlled clinical trials, but neither were his own conclusions about the effectiveness of the drug. The university's board of trustees met in executive session on November 23. Krebiozen had become a time bomb, and the trustees were trying to defuse it before it exploded in their faces.

In his 1981 autobiography *The Pursuit of Education*, U. of I. President George Stoddard wrote, "I felt that the time had come for the

University of Illinois to conduct its own inquiries and come to its own conclusions regarding the nature and the clinical efficacy of krebiozen.” At the November 23 meeting, Stoddard and the trustees decided to try to validate the effects of krebiozen on cancer patients and make their findings known to the public. President Stoddard subsequently appointed a research validation committee headed by Dr. Warren Cole to evaluate Ivy's clinical records. Beginning January 1, 1952, the board of trustees granted Ivy a two-month leave of absence from his post as vice-president to gather information for the committee, which became known as the Cole committee.

The Cole committee was made up of some big-wigs in academic cancer research, including N.C. Gilbert, professor emeritus of medicine at Northwestern University; Fred Hodges, professor and chairman of the department of radiology at the University of Michigan; and Robert Keeton, professor emeritus of medicine at the University of Illinois.

Dr. Ivy submitted to the Cole committee his report on the available cases of cancer patients that had received krebiozen



treatment. This report was in two volumes consisting of over 500 pages.

After Ivy submitted his data, the Cole committee met on June 29, July 6, and August 4, and then reported its findings to Stoddard on September 10, 1952. In its report to Stoddard, the committee concluded that “it is our belief that krebiozen has no curative value in the treatment of cancer.”

The committee was never able to determine the chemical nature of krebiozen because Ivy told the members it was unavailable for examination. Dr. Ivy told the committee that none of the material was available because it had all been put into solution in mineral oil and that extracting krebiozen from the mineral oil would produce a very small amount.

“In our opinion,” the Cole committee's report stated, “it would be inconclusive if not futile to conduct further clinical investigation unless it is first possible to dispel the mystery which surrounds the nature of the material. In default of this step no further consideration should be given to the problem.”

Stoddard appointed another committee to try to determine just what krebiozen was, but the Durovics continually evaded every attempt to force them to reveal the formulation of krebiozen.

In response to the Durovics' refusals, Stoddard banned all further clinical research on krebiozen at the University of Illinois. The president decreed "that there be no allowance of time, funds, space, equipment, patients or printing in behalf of any staff member of the University of Illinois for the clinical utilization of krebiozen, and that every effort be made to disassociate krebiozen from research or service programs. This action would be consistent with the major recommendations of the Cole Committee in which I have full confidence; it would, I believe, merit the support of all medical men familiar with these events."

Furthermore, on November 29, 1952, Stoddard urged the board of trustees to abolish Ivy's vice-president's job to help resolve the krebiozen controversy. Ivy was clearly becoming an embarrassment to the university. However, the board merely granted Ivy a leave of absence for six months.

The response of the medical faculty and the board of trustees of the University of Illinois to Stoddard's actions reflected the divided passions that Ivy inflamed. On one side were those who saw Ivy as a fraud and a disgrace to the medical profession. On the other were those who viewed him as the beset-upon champion of a drug that could potentially have untold benefits for cancer patients. At its meeting on November 21, the medical faculty was asked to vote on two statements. The first one said:

"The Executive Committee of the Faculty of the College of Medicine regrets the conduct and presentation of the research on krebiozen and the continued interest of the Vice President in its possible anti-cancer effect in the face of competent scientific findings (including those of our Tumor Clinic) to the contrary. The Committee further regrets the loss of prestige which the office of the Vice President has incurred with the medical profession and is distressed by the confusion engendered in the minds of the faculty and students relative to research and teaching standards of the College of Medicine."

The second statement read in part: “Whereas, we believe that the matter at stake is far more important than the substance krebiozen, its value or lack of value. The ultimatum which we understand to be contemplated is rather a *precedent*, which might end for every one of us a tradition of freedom of research within a great university. This could happen to any one of us. At stake is the future of any new idea, of any new therapeutic agent in the process of development, not for individual gain but for the good of mankind.”

The faculty members defeated the second resolution by a vote of 95 to 58, and added support for Stoddard to the first: "The Executive Committee of the Faculty of the College of Medicine commended the President of the University for his stand on the krebiozen problem.” And so, in the end, the medical faculty backed Stoddard’s action.

Ivy defended himself in a statement to the faculty that said: “Believe me, after the first disparaging reports and comments on the use of this material came to my attention, it would have been easier for me to disassociate promptly myself from this research. Many of

my friends and associates from all over the world advised me to do just this. However, had I done this at that time, without, in my judgment, exhaustively and thoroughly studying the response of all types of tumors to this substance, I think that I would have betrayed those unfortunate human beings afflicted with cancer, who put their trust and hope in this material.”

Ivy further cited one of the Cole committee’s conclusions that “on the basis of the evidence submitted we cannot state that it is entirely devoid of biological activity.” He used this statement as justification for continued study of krebiozen.

At the same time, in a dramatic move, the dean of the College of Medicine, Dr. Stanley Olson, who reported directly to Ivy, announced his resignation, effective January 1, 1953. He cited “basic differences of opinion between Doctor Ivy and myself” as the reason. But no matter what actions his opponents took, as Dr. Cole had indicated to President Stoddard early on, Ivy had powerful friends and supporters in the state legislature and on the university's board of trustees who continued to tolerate Ivy’s

methods.

The controversy became a circus when Ivy alleged that Stoddard conspired with the American Medical Association and the Chicago Medical Society to have him ousted as vice-president of the university over the krebiozen affair. Incredibly, the Illinois state legislature convened a special committee to investigate the whole krebiozen matter in early 1953.

One of the most bizarre charges to come out of those hearings was made by Alberto Barreira, the Argentine millionaire who was backing the Durovics. Barreira testified that the treasurer of the American Medical Association, Dr. Josiah Moore, had asked his help in 1951 to force the Durovics to sell distribution rights to krebiozen to business friends of Moore. Ivy had maintained throughout the committee's hearings and afterwards that some in organized medicine conspired to suppress krebiozen and to steal the secret of the drug for their own profit.

In another outlandish turn to this story, while the legislative hearings were still going on, the board of trustees of the

University of Illinois, at a midnight meeting on July 24, 1953, voted to force the resignation of the university's president, George Stoddard, saying it had lost confidence in his administration. Ivy was allowed to stay on the faculty of the College of Medicine, but the trustees refused to reinstate him as vice-president after his leave of absence ran out. The legislative committee eventually concluded that both Dr. Ivy and Dr. Durovic were "men of good character" and that neither Dr. Stoddard nor the AMA had conspired against Ivy.

Stoddard moved to Princeton, New Jersey, where he wrote a book about Ivy and krebiozen, originally titled *Krebiozen: The Great Cancer Hoax*. But Ivy won a court injunction against the publisher, Boston's Beacon Press, and Stoddard's book became, as Patricia Ward noted, the first book ever banned in Boston *before* it was published. The Massachusetts Supreme Court later overturned the injunction and the book was published in 1955 under a revised title, *Krebiozen: The Great Cancer Mystery*. After it was published, Ivy persisted in his feud with Stoddard, who by then had become

chancellor of New York University, and Ivy filed a libel suit against his former boss, asking \$360,000 in damages. The case turned out to be the longest in the history of the U.S. District Court for Northern Illinois and one of the longest libel suits on record — 11 years. After some initial reading of the book aloud to the jury, the judge postponed the trial until the nature of krebiozen could be determined. It was not until June 10, 1966, that the suit was dismissed with prejudice when Stoddard signed a statement saying he did not intend to libel Ivy.

In the meantime, Ivy and the Durovics continued dispensing their mysterious substance through the Krebiozen Research Foundation and in 1954 began asking for donations for the drug ranging up to \$9.50 per dose. Some patients were taking up to 20 doses a week. The drug was raking in huge sums of money, probably millions. Ivy defended the profit by saying that the Durovics had invested over a million dollars to develop the anti-cancer elixir.

In 1962, the Krebiozen Research Foundation issued a report indicating



that 3,300 physicians had treated more than 4,000 cancer patients and claimed the case records returned to the foundation by the treating physicians showed objective improvement in the patients, with a 61 percent decrease in the size of tumors in the brain and spinal cord, a 70 percent decrease in the size of tumors that had spread to other parts of the body from a primary tumor, and a 48 percent decrease in the size of breast tumors. However, a later analysis of the foundation's data found that about 80 percent of the physicians who tried krebiozen on their patients treated them only once, presumably because the drug had no effect.

There was also evidence in the Krebiozen Research Foundation's data that Dr. Ivy and Stevan Durovic were delaying needed treatment in some cancer patients to try to prove the effectiveness of their elixir. A case in point is that of a woman with breast cancer who had read about krebiozen and refused surgery for her cancer in favor of a trial of krebiozen. The foundation's records diagnosed her case as "early operable," meaning she was a candidate for surgery early in the course of her disease, but gave her krebiozen in 1958 instead of recommending surgery. Her tumor doubled in size while she was on krebiozen. After nearly a year's delay in more

definitive treatment, Ivy and Durovic finally recommended a radical mastectomy. The woman died 10 months later of metastatic cancer that had spread from her breast to her lung.

In 1962, a California physician who suspected the foundation's claims for krebiozen were fraudulent, requested the drug for a cancer patient who had undergone bilateral pneumonectomy, that is, surgical removal of both lungs. Of course, no one can survive without at least one lung and the patient would be dead, but the Krebiozen Research Foundation sent the physician eight ampules of krebiozen and a bill for \$76.

Throughout all the ballyhoo over the drug, an estimated 5,000 patients eagerly took injections of the preparation because they were solemnly convinced that it kept them alive. Some of them even picketed the Kennedy White House in 1963 to protest government action against what they called their lifeline.

Even though Stevan Durovic stealthily evaded all attempts at analyzing krebiozen, the federal government allowed him to continue dispensing the substance because under rules of the Food and Drug Administration then in force, a drug manufacturer could

distribute an experimental product as long as he could prove that the medicine was not toxic. But after another drug scandal, the thalidomide disaster, the FDA law was tightened. In 1963, the Kefauver-Harris amendments to FDA law resulted from an investigation by Senator Estes Kefauver into the drug industry after it was found that when pregnant women took thalidomide, a sleeping pill, their babies were often born deformed. Thalidomide was developed in Europe and never approved for sale in the United States, but the drug's sponsor had sent samples of the drug to thousands of doctors in the United States who gave the samples to their patients without telling them it was an experimental drug.

Under the new regulations, the FDA finally analyzed krebiozen in 1964 and found that it contained nothing more than creatine, a common amino acid derivative “plentifully available from meat in the ordinary diet . . . and a normal constituent of the human body.” Furthermore, the FDA declared that its samplings of the krebiozen shipped prior to 1960 revealed nothing but mineral oil.

Commented Dr. T. Philip Waalkes, who was at the time associate director of the National Cancer Institute: “It is impossible to conceive that creatine . . . could be of any value in treating cancer.”

Illinois Senator Paul Douglas’ office issued a report denouncing the FDA findings as false. Stevan Durovic responded by saying, “The FDA's plan, of course, is to harass us to such an extent that we will abandon krebiozen. I will never do that. I believe in it. It helps patients. Krebiozen represents 33 years of my life’s work. I hope we can get the help to win this fight. I believe we will win because of the power of human justice.” Dr. Ivy told a reporter, “I’m going to keep going. I’m going to continue my work. This isn’t Russia. Here the creative scientist is free.”

But the federal government was closing in. In November of 1964, a grand jury in Chicago indicted Ivy and the Durovics on 49 counts of failing to comply with provisions of the new FDA regulations. In a desperate move, Ivy went to the courts to enjoin Attorney General Nicholas Katzenbach from bringing him to trial on criminal charges. He was denied this action a week before his

criminal trial was due to start in April of 1965. Surprisingly, after a lengthy trial, the defendants were acquitted of all charges, although the jury was deadlocked several times before it rendered the final verdict. Presented at the trial was an analysis of the 22 initial cancer patients treated with krebiozen described in the brochure Ivy distributed during his press conference at the Drake Hotel in 1951. The analysis found that 10 of the 22 patients died of cancer, although in the brochure cancer was not listed as the cause of death. Ivy testified at the trial that since no one at the Drake Hotel meeting asked if the patients were alive or dead, he did not believe he had an obligation as a scientist doing scientific research to report that the 10 patients died.

The IRS soon went after the Durovics for \$815,000 in back taxes and indicted the brothers on charges of tax evasion. Stevan Durovic escaped to Switzerland, never to return to the United States, and Marco contested the government's case. He lived out his life in a wealthy suburb of Chicago.

Andrew Ivy remains the chief mystery in the krebiozen affair. He

stayed on the faculty of the University of Illinois until 1962 when he retired. He then continued doing research from an office provided him by Roosevelt University in downtown Chicago. After his criminal trial, he gave up his efforts on behalf of krebiozen but took up a new investigation — of a substance called carcalon, derived from the blood serum of cattle, which Ivy believed could aid the body's natural defenses against cancer. Ivy died in 1978.

The major question surrounding Ivy is why he so doggedly backed the Durovics and risked his reputation on an unproven substance. “Without Ivy, there would have been no krebiozen,” said Dr. George Wakerlin, who was on the medical faculty at the University of Illinois in 1951. “After all,” he said, “Doctor Ivy was no cancer quack. The medical community at first simply refused to believe that he would lend his name to an apparently worthless drug.”

Some say Ivy truly believed that the cancer patients he treated were being helped by the drug, although he certainly should have known that since all of his patients were terminal

cancer patients and were being treated by other means as well — surgery, radiation therapy, and chemotherapy — any improvements in their health could be due to a number of reasons.

Others look at greed as the motive. But while it is likely that the Durovics profited handsomely from krebiozen, there is little evidence that Ivy's pockets were lined by profits from the drug.

Some of his former colleagues point to blind ambition as the cause of his downfall. "Ivy had two or three crucial weak spots," said Dr. Warren Cole in an interview with me. "Number one was a desire to win the Nobel Prize, and that's what ruined him. He also failed to realize that cancer patients will respond favorably to any kind of care their physician gives them. I remember that he invited me to his office early in the game to convince me of the value of krebiozen. He pulled out a book full of statements from patients saying, invariably, that they felt better after treatment. He concluded that they were getting better from the treatment. In reality the patients were converting hope into a feeling of improvement."

Cole and his research validation committee have been criticized for being too lenient on Dr. Ivy in their report. “We were asked to study the cases and see if the cure was real,” Cole said. We were not told to punish Dr. Ivy. There were those who wanted us to say ‘You’re a damned liar,’ but that was not our business.” The committee's report was further criticized for concluding that “on the basis of evidence submitted we cannot state that it is entirely devoid of biological activity.” But in its follow-up statement in June of 1953, the committee clarified its intent: “It was then and still is the considered opinion of our Committee that neither the written report of Dr. Ivy nor the evidence in patients shown by Dr. Ivy and his group before our Committee proved that krebiozen had any favorable biological activity in cancer.”

So in the end, who belled Dr. Andrew Ivy and his krebiozen cat? Certainly, Dr. Cole and his research validation committee helped bell the cat, but it was the scientific medical community in general, including the AMA, the American Cancer Society, and the FDA, that uncovered the fraud that was krebiozen and



prevented further harm to dying cancer patients with this drug.

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