THE POLITICS OF CANCER

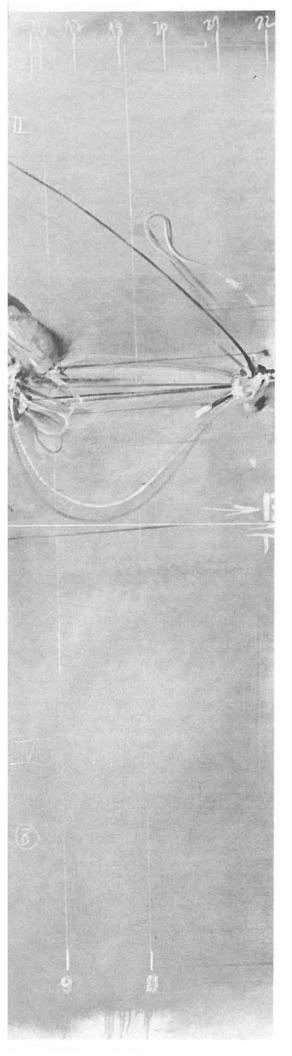
PART FIVE

A cancer researcher found an early-detection system for cancer, as well as a promising treatment, and was blacklisted by the cancer establishment.

SUPPRESSION OF NEW CANCER THERAPIES: DR. LAWRENCE BURTON

BY GARY NULL and LEONARD STEINMAN with special assistance by Terry Leder and Kalev Pehme





THE POLITICS OF CANCER

PART FIVE

A cancer researcher found an early-detection system for cancer, as well as a promising treatment, and was blacklisted by the cancer establishment.

SUPPRESSION OF NEW CANCER THERAPIES: DR. LAWRENCE BURTON

Early this spring the American Cancer Society decided to share some unusually somber news with the rest of the world. Most of the tests it had glowingly recommended for the early detection of cancer were not working as expected—and a few were not doing any good at all. Independent cancer specialists had found glaring inconsistencies when they evaluated the risks and costs of the tests against the alleged benefits. Hospitals and labs, it seems, were raking in enormous profits from millions of tests that were done unnecessarily on the basis of questionable ACS guidelines. Even more damaging evidence pointed to potential hazards from certain tests themselves. Thousands of women face the ugly prospect of getting breast cancer from a supposedly harmless test that they were led to believe would detect a mammary-gland malignancy before it turned into a palpable lump.

On the first day of spring, in a carefully worded news release issued from its national headquarters in New York City, the ACS admitted that it was scrapping all of its recommendations for tests to detect lung cancer and that it had made drastic changes in the guidelines it had once adamantly defended for detecting uterine, breast, and colon-rectal cancer. What had until that moment been sold to the public as a reliable early-detection system for cancer was revealed to be riddled with defects. It was an unprecedented admission of failure and, in the view of many cancer specialists, long overdue.

ACS's belated confession of having misled us for so many years would seem to put us back at square one. Except for the work of Dr. Lawrence Burton. Burton is an experimental scientist whose work has long been ridiculed and proscribed by the ACS on behalf of the cancer establishment. But his work now may provide us with one of the most accurate diagnostic tests ever discovered—for early detection of all forms of cancer as well as for monitoring the progress or ineffectuality of treatment, whatever its form or content.

BY GARY NULL and LEONARD STEINMAN with special assistance by Terry Leder and Kalev Pehme

PAINTING BY VLADIMIR VELICKOVIC

Burton's work has been virtually driven from public view under the heavy, smiting hand of the cancer establishment, which is antagonistic to anything that might threaten its own conventional and expensive method of cancer treatment.

Burton's test is the result of a series of scientific discoveries made by him and his colleagues in the course of their experimental work during the sixties. This work showed that certain factors present in the blood are essential for the efficient functioning and cancer-destroying capabilities of the body's natural immunological system. When these factors are depleted or not in proper quantitative balance with each other, the body's own cancer-destroying capability is weakened. The result: proliferation of cannibalistic colonies of cancer cells that eventually overwhelm and destroy the body's immune-defense system. Burton and his colleagues showed how, by augmenting the depleted blood factors and restoring their balance, the body's immune-defense system can gradually be restored to annihilate the cancer colo-

The vendetta against Dr. Burton is an example of how the cancer establishment employs its formidable power-to the detriment of all cancer victimsagainst legitimate scientific cancer researchers who will not knuckle under to ironfisted, monolithic control over the cancer field wielded by powerful vested interests. Because the establishment's leaders and hirelings have a stranglehold on most of the government and private research funding in the United States, they have incredible leverage not only to promote their own economic interests but also to minimize innovations and discoveries not of their own sponsorship.

In effect, scientists and doctors who do not conform to the cancer establishment's fire-worshipping ways of treatment, their thinking, and their use of prescribed methods face professional tarring and feathering and eventual consignment to professional oblivion by both government superagencies that fund and regulate cancer research and the nongovernmental cancer institutions.

IN THE BLOOD

In 1977 Dr. Lawrence Burton, a bearded, pipe-smoking Ph.D., moved his operations from Great Neck, N.Y., to Freeport in the Grand Bahamas in an effort to flee what he had come to regard as a concerted campaign to destroy his work and malign his character and scientific abilities. In the previous ten years, Burton had attempted to gain recognition for his discoveries from such major institutions as the National Cancer Institute (NCI), the American Cancer Society (ACS), the Food and Drug Administration (FDA), the Damon Runyon Memorial Fund, and Memorial Sloan-Kettering. These constitute the Pentagon of the cancer establishment in the United States. He also attempted to

publish his findings in prominent journals and to gain access to the scientific community. However, he consistently found no support and, in fact, encountered open hostility from them.

Beginning in the early sixties, in association with several colleagues, Burton discovered a treatment that could shrink mouse tumors before one's eyes, often in the space of an hour. From the time of these first experiments on mice until his self-imposed exile, he developed, and continues to experiment with, a therapy based on four protein components found in the blood: (1) a tumor antibody capable of destroying certain kinds of cancer cells: (2) a tumor complement, needed to activate the tumor antibody; (3) a "blocking" protein, a substance that inhibits the tumor antibody; and (4) a "deblocking" protein, which keeps the blocking protein neutralized so that the attack of the antibody and complement on tumor cells may be facilitated.



The vendetta against Dr. Burton is an example of how the cancer establishment employs its power to the detriment of cancer victims.



These four blood fractions isolated by Burton are believed to be an essential part of the basic immune system operative against cancer in the body. Theoretically, when these elements are in balance, the cancer cells that normally reside in everyone's body are routinely destroyed by the combination of antibody and complement. If the blocking protein is in greater force than the antibody, then cancer cells are able to proliferate in the body. However, if the deblocking protein is adequately balanced against the blocking protein, then neutralization of blocking protein enables the tumor antibody and complement to annihilate cancer cells.

injecting predetermined By daily amounts of antibody, complement, and deblocking protein into cancer patients to achieve an augmented immunological response, Dr. Burton has been able to bring about remissions in various types of cancer tumors, sometimes even in the terminally ill. This "immuno-augmentative" process is nontoxic, because it uses the body's own mechanisms to fight cancer. He also has used his fourfold theory to develop a cancer test, a way to

tell whether a patient has cancer or is likely to develop it. This test can be performed by examining a blood sample.

If Burton's theory and therapy are correct, the implications of his discoveries could have a sweeping effect on how we view cancer genesis and treatment. One of the major implications of Burton's work is that the body has its own means of warding off cancer. Some patients' immune systems, pathologically weakened by a quantitative lack of certain fractional blood factors, can be restimulated through Burton's immuno-augmentation so that the body's systems can again become effective in destroying cancer cells.

Burton's discoveries, therefore, could eventually overturn the present methods of treating cancer and render obsolete the deadly triad of radical surgery, chemotherapy, and radiology. Considering that these cornerstone therapies of cancer "treatment" are the economic support of the cancer industry, it is no wonder that the establishment views in-

novators with savage hostility.

From the establishment of Burton's Freeport clinic in late March 1977 to the end of January 1978, Burton was required to submit a status report to the chief medical officer of the Bahamian government. Burton's report on his IRC showed that in that period 275 patients were treated at the facility, 27 of whom were terminal cases. Over a five-month period, 44.5 percent of these patients, including six of the terminal cases, showed containment or regression of their cancer after treatment by Burton's methods; 36.5 percent, including 19 of the terminal cases, did not respond to the Burton treatment. The remainder and their progress could not be evaluated at that time.

OF MICE AND MEN

Burton's work is on the "Unproven Methods of Cancer Management" list kept by the American Cancer Society and distributed to foundations, hospitals, and research facilities to identify "unacceptable" cancer treatments. One of the interesting things our investigation uncovered was that not a single critic of Burton has attempted to test his therapy to see whether it works or not.

Burton's troubles with the establishment did not begin with Great Neck or Freeport. They originated in the early sixties, when he was part of a research team at the Hodgkin's Disease Research Laboratories of St. Vincent's Hospital in New York City. The team, headed by Dr. Antonio Rottino, an advisory board member of the Damon Runyon Memorial Fund, worked on carcinogenesis—attempting to find substances that promote tumor growth. The work was sponsored by major grants from Damon Runyon and the U.S. Public Health Service.

The trouble began after the team accidentally discovered a tumor inhibitor, which reduced or eliminated cancer in a special breed of leukemic mice. Excited

by the discovery, the team contacted Dr. Chester Stock, presently vice-president and head of research at Sloan-Kettering, and shared some of their data with that institution. Stock expressed interest, and Sloan-Kettering sent a senior scientist, Dr. John Harris, to work with the St. Vincent's team; it also agreed to replenish the stock of inbred leukemic mice.

The work continued and progress was made, Harris acting as liaison with Sloan-Kettering. Harris's reports to his principal prompted Sloan-Kettering to offer a contract to the team. According to Burton, Rottino looked over the contract provisions and rejected them. For it appeared that the "joint cooperation" offered by Sloan-Kettering was merely a device for giving them all of the credit, while the researchers at St. Vincent's would do all the work. As Burton recalls, "Rottino comes from New York, and he said some very choice words and threw the contracts in the garbage."

"John Harris conveyed our willingness to test their material on a basis where they wouldn't lose any of their rights," remembers Stock. "In fact, we offered them a type of contract, a co-op agreement.... We thought we could conduct tests and let them know if we could confirm their results." Stock continues, "I learned later from Dr. Robert Kassel, who came on our staff and who was associated with them at St. Vincent's, that they had not overcome their concern about having us test their materials. Perhaps they were concerned we were going to steal something."

Work progressed well, nonetheless, and the team of Burton, Frank Friedman, Kassel, Rottino, and Harris eventually published some astounding findings in the November 1962 issue of *Transactions of the New York Academy of Sciences*. The team had found natural substances that were able to cause remissions of better than one in two in leukemic mice, a possible breakthrough.

Two things happened upon the publication of the paper: first, Harris was fired from Sloan-Kettering; second, both the Damon Runyon and U.S. Public Health Service grants were canceled.

According to Burton and Rottino, Harris was fired because, among the article's authors, he, as a member of Sloan-Kettering, was listed behind two unknowns, Burton and Friedman. Harris (now dead) explained to Alan Anderson. Jr., in an article in New York magazine, that "in those days ... S .- K. always wanted to come out playing first trumpet, no matter who wrote the tune. When the director sent me down to St. Vincent's, the idea was for me to smuggle back as much information as I could. I didn't go for that, and Friedman, Burton, and I published everything that went on. This got disapproval back at the lab."

The termination of the grants also left four Ph.D.'s, two M.D.'s, and a half-dozen technicians without salaries, accord-

ing to Burton. They reapplied to both the Public Health Service and the Damon Runyon Memorial Fund for resumption of funding. Both funding agencies decided to send a site-visitor to inspect. The important fact to note is that both the Runvon people and the Public Health Service sent the same inspector, Dr. David Karnofsky, chief of chemotherapy at Sloan-Kettering. According to Burton, Karnofsky told the team members: "'You didn't do the biopsies ahead of time. We can't be sure that they really were leukemic. And until you can be sure, you can't get the money.' And he laughed." Before Karnofsky's second visit, the biopsies were prepared. Still, Karnofsky found a way to reject them. As Burton relates it: "And he looks me in the eye, and he looked Friedman and Kassel in the eye, and he said, 'Wait a minute, how can we be sure you didn't introduce staphylococcus, and that's what cured the mice?' So we were damned either way. He said, 'Sorry, you can't have the money.'

By the end of 1963, Martin Kaplan left the team; the technicians were let go; Kassel left in January 1964; and Burton and Friedman were left. According to Burton, both he and Friedman attempted to reinterest Sloan-Kettering in the work but were coldly turned down by a high-level committee after a year and a half of nonresponse.

A small postscript: Burton's bitterness about this period is monumental. "Now I'll give you the sad thing, and this is what's called, in Yiddish, chutzpah. In '67, I got a call from Dave Karnofsky—voice very agonized. I said, 'Who's this?' He said, 'Dave.' I said, 'What's the matter, Dave?' He said, 'I've got lung cancer; it's in my brain. It doesn't respond to radiation and chemotherapy. Can you help me?' I'm afraid I was not very nice. I said, 'Dave, I didn't have a biopsy, and if I had a biopsy, you could have had a staphylococcus. Maybe you ought to try somebody who can help you.'"

THE 15-MINUTE CANCER CURE IN MICE During 1964 and 1965 Burton and Friedman, with the help of Dr. Rottino, who scraped together subsistence money, continued to work at St. Vincent's. Convinced that they were onto something with their immunological approach, they finally perfected the use of two substances that kill tumors in mice.

In the fall of 1965, the science editor for the American Cancer Society, Patrick McGrady, Sr., was being treated at St. Vincent's for a minor ailment. Knowing Rottino well, McGrady toured the labs and was given a demonstration by Friedman and Burton of how, in about an hour, they could shrink away tumors in special strains of mice. McGrady was stunned: "They injected the mice, and the lumps went down before your eyes—something I never believed possible." McGrady quicky invited both Friedman and Burton to perform the feat again at the American

Cancer Society's 1966 Science Writers Seminar in Phoenix, Ariz., held just before the ACS began its fund-raising operations for the year.

McGrady, who subsequently left the Society in disagreement with its policies, introduced the researchers to writers and scientists assembled in Phoenix for the seminar, and, with the serum they had isolated, Burton and Friedman injected two mice that had mammary cancers. An hour and a half later, the tumors had virtually disappeared. "All of the reporters ran out," Burton remembers. "I said to Friedman, 'Boy, either we got bad breath, or something we did frightened them." The next day the conference made headlines throughout the world. On the front page of the Los Angeles Herald-Examiner, the banner headline read: 15-MINUTE CANCER CURE FOR MICE: HU-MANS NEXT?

Instead of welcoming this publicity, the American Cancer Society representatives began to have second thoughts about the Burton-Friedman demonstration. McGrady notes: "It was very hard for the people to believe what they had seen. It had happened." While Burton and Friedman were out sightseeing, several doctors approached McGrady and muttered that the whole thing had to be a fake and fraud. They called the experimenters "quacks, charlatans, and what have you," as Burton notes.

McGrady invited the skeptics, including Sol Spiegelman, the present head of the Oncology Institute at Columbia Presbyterian Hospital, to repeat the experiment with two ampules that Friedman and Burton had left behind. With two newspaper reporters in the room, the five refused to inject the serum into the remaining mice. Had the injection worked again in the hands of others, the reporters would have had an even more sensational story. Even so, the publicity for Burton and Friedman grew. Late in 1966,. Dr. Richard P. Mason, ACS's senior vicepresident of research, visited Burton and Friedman at St. Vincent's. According to Burton, Mason told them, as well as Rottino, that they had made their contribution and that they could receive a grant if they would give their techniques to the NCI and to Sloan-Kettering.

"We figured it was going to be lifetime fellowships—our entire life's work handed over," recalls Burton. Mason, however, offered only a one-year \$15,000 grant for the entire team. Burton: "And we were stunned. What is this? Two Ph.D.'s, an M.D. We have a mouse colony—and you're going to give us one year? But then what happens next? 'Don't worry, when this is repeated, everybody will come knocking on your door.' Big joke. Friedman threw him out."

PUBLISH OR PERISH

Within the medical research world, publishing the results of experiments is more than a way of communicating progress to

other scientists and doctors so that they can reproduce the results for themselves; it is also a way to acquire prestige and legitimacy in the profession. For the most part, journals are sponsored by important institutions and have editorial boards comprised of respected professionals in the field. The inability to publish is scientific exile. To publish means position, status, and a way of obtaining grants.

Faced with considerable interest on the part of the press and others but unable to show any scientific papers after the 1963 New York Academy of Sciences debacle, Burton, Rottino, and Friedman made determined efforts to get published. Rottino, for example, attempted to publish findings in extract form for annual conferences of cancer scientists in 1967—and was rejected. Rejection dogged every submission of theirs for the next three years.

The Burton-Friedman-Rottino team had concluded a milestone experiment on a large sample of cancerous mice. The experiment and its results were described in exhaustive detail in a paper entitled "Long-Term-Induced Remissions: Mammary Adeno-Carcinoma in the C3HT Mouse." The paper was submitted directly to the editor of Cancer Research, Dr. Michael Shimkin. The experiment proved that there was no foundation to the criticism that the effects of the team's tumor-shrinking serum were illusory or transient or that the tumors grew back after a while, that the mice eventually died of their cancers, or that the serum was only a gimmick. The experiment showed that in most of the cancerous C3HT mice injected with the serum the tumors did not grow back, that the remissions lasted the lifetime of the mouse, and that 23 months elapsed before the last of the mice, cancer-free since the induced remissions, died finally of old age, without a trace of cancer.

According to Burton, independent critical review of scientific papers submitted to journals is done by editorial or advisory-board members who may request the experimenter to incorporate additional data in the paper; if in their opinion, the experiment does not deserve publication, the paper is returned with pro forma thanks. After publication of the paper, anybody is entitled to reproduce the experiment as described. But it is highly unorthodox for any person associated with the journal to attempt to replicate the experiment in advance of publication. When, in violation of this precept, reproduction nevertheless occurs, the violator is suspected of questionable scientific conduct.

Not having heard from the publication for some eight months, the team decided to call the editor. They were stunned by what they learned. According to Burton, the editor told them that he considered their paper of such importance that his laboratories were now trying to repeat their results. Burton says that the editor

was asked, "What is to prevent you, as editor, from putting your name on the paper, either saying that you reproduced our work or that we reproduced your work?" To which Shimkin allegedly replied, "You gotta trust me." Unfortunately, the editor had done little to warrant their trust. The paper's return was demanded under threat of a lawsuit, and the editor finally acquiesced. Eventually, the obstacles interposed to publishing became so frustrating for Burton that he decided to forgo it, thus giving up the orthodoxy he had attempted for so long to attain.

TO GREAT NECK

In 1970 and 1971 Burton and Friedman assisted Dr. Rottino in his treatment of patients at St. Vincent's with the antitumor serum. "Then Rottino came to us in 1972 and said, 'We're going to have to stop treating patients.' Why? 'They [the local cancer establishment] blew the whistle on it.'" Rottino reportedly told Burton and Friedman that St. Vincent's was not going to jeopardize \$3.5 to \$4 million in other grants because of opposition to their project by the cancer establishment.

At this time a terminally ill breast-cancer patient, the wife of a Long Island psychologist, was being treated with the Burton-Friedman technique. The psychologist, Martin Goldstone, was friendly with a prominent Great Neck rabbi, Robert S. Widom, and together with Burton and Friedman, the Immunology Research Foundation was formed. Initial funding was raised with the help of another businessman, Lionel Teicher, and by the fall of 1973 the center was in quiet operation.

In July 1974 New York magazine came out with an article by Alan Anderson, Jr. The article summarized Friedman and Burton's progress until then, which by 1974 had finally resulted in the basic four-part theory that Burton developed for treatment of patients at the Bahamas Clinic. One important result of the article was that a vice-president in charge of research and engineering at Champion International in Hamilton, Ohio, Herbert Randall, decided to fund Friedman and Burton in September 1974 after extended investigation and study of the nature of their therapy. He is presently vice-president of the Immunology Researching Foundation, the funding umbrella of the Freeport center.

TERRY AND THE PIRATES

"The laboratory tests they are doing have no basis in science," says Dr. William D. Terry, associate director of the Immunology Program of the National Cancer Institute, a \$1 billion-a-year taxpayer-funded arm of the National Institutes of Health. Terry, who has been at the NIH for 18 years, is in fact the cornerstone of opposition to Burton's work. He has become NCI's spokesman regarding Burton, and he has made two visits to Burton's labs,

once in Great Neck and later in Freeport.

According to Terry, not only is Burton unscientific; he is unable to distinguish fantasy from reality: "What you are up against here is that there is no way to deal with the Dr. Burtons and their putative treatments, which are put forth by people who are outside of the system and who, in a sense, keep themselves out of the system."

According to Burton, Terry's first visit to see his work was at Great Neck after Sen. Howard Metzenbaum of Ohio (whose wife had recently died of breast cancer) wrote to the NCI to inquire about Burton's therapy as described in the New York magazine article. Burton maintains that the NCI replied and disparaged Friedman and Burton's work, contending that it had all been done by others before, that they did not publish, that they were very secretive, and that the NCI knew nothing about it. In turn, Metzenbaum asked the NCI how, if Burton and Friedman were so secretive that no one knew what they were doing, the NCI could assert that they had only repeated the work of others

It was at that point, according to Burton, that Terry made his first appearance in Great Neck on behalf of the NCI. "You never have met a more hostile SOB in your life," says Burton. "He came in at nine o'clock in the morning, and Terry says, 'People come to me; I don't go to anybody." According to Burton, Terry then offered to walk Burton through the paperwork for a grant of \$1.2 million, which would come out of a special NCI fund of \$6 million, set aside for unique projects. But nothing happened.

Terry contradicts Burton: "I never offered any such grant." However, a special American Cancer Society report on the Immunology Researching Centre (IRC) dated October 20, 1977-under a section labeled "Relations with Government Agencies"-reads: "In late 1974, the National Cancer Institute, after a site visit to Drs. Burton and Friedman, offered to collaborate with the Immunology Research Foundation by testing and attempting to confirm Dr. Burton's claims related to an immunological means for controlling cancer, but the offer has not been accepted to date." This tends to confirm Burton's version.

The second time Terry came into a Burton lab was in Freeport, three years later. Burton was forced to leave Great Neck, because in addition to other circumstances, the U.S. Food and Drug Administration continued to refuse to grant permission to IRC to conduct clinical trials of an immunological approach to the treatment of cancer patients. According to Burton, the FDA would request certain specific information. The information would be provided, and then the FDA would come back and request more. More information would be provided, and the FDA would then request more and more. These endless bureaucratic demands were too much for Burton and Friedman, and finally, in disgust, they asked the FDA to close its file. Searching for a less oppressive medical research environment, Burton discovered the Bahamas—and Freeport.

But before IRC could move there, Dr. Charles, then chief medical officer of the Bahamas, wrote to Dr. Terry, asking his views about Burton's establishing a clinic in Freeport. "I believe that Dr. Charles, on behalf of the Bahamian government, contacted me. I would have to go... and check to see if it was a letter or a telephone call," remembers Terry. "But I did provide my view."

According to Burton, the letter Terry sent to Charles said that Burton was a "paranoid psychotic." According to Terry, "I never in writing told anyone that I thought Dr. Burton was a paranoid psychotic."

Despite Terry's unfavorable opinions and, according to Terry, the opposition of Dr. Charles, the Bahamian government granted Burton permission to open a clinic in Freeport, with the proviso that proper records would be kept and that patients would be treated only with a physician present (Burton is a Ph.D., not an M.D.). In the contract, however, there was a stipulation that at the end of the year, an "international review" of Burton's operations would be conducted.

The reviewers turned out to be Dr. Charles, a member of the Pan-American Health Organization whose field of expertise was not cancer, and the NCI's Dr. William Terry, once again. Terry does not feel that his impartiality as part of the review panel was hindered by his previously unfavorable comments to Dr. Charles about Burton. "The work is the work," says Terry. "It's a matter of reviewing what's there. It has nothing to do with opinions about people. . . . I am perfectly capable of dispassionately judging what was going on because I am in the business of looking for things that work."

Terry was critical of the clinic. As far as he is concerned, the clinic is a procedural and scientific mess. He has not made it a secret that he regards the whole thing as quackery. According to Terry, there were no accurate records, no consistent protocols of treatment or study. And even if there were, Burton would not have been able to properly interpret them. The theory of the relation of the blood fractions to the immunological system is, according to Terry, just "horse manure." "From whatever Dr. Burton has ever told me, or Dr. Friedman, or from what I saw down in the Bahamas, the lab tests they are doing make no sense and have no basis in science." Terry spent only two days in the Bahamas; he did not interview patients but nevertheless authored a critical report to the Bahamian government concerning Burton. Apparently, the Bahamian government paid no credence to Terry's unscientific polemic. Pursuant to agreement with the Pan-American

group, Terry's unscientific appraisal was not released, and the Bahamian government invited Burton to stay.

Burton's recollection of the two-day trip of the international review board is vivid, and he recalls that the panel wanted the names and U.S. addresses of patients as well as those of the doctors who recommended them to the clinic. Burton's Bahamian attorney balked at the request in the belief that it was not made in good faith but rather for the purpose of reporting the physicians to their local medical societies for disciplinary action. Terry claims the reason for the request was to attempt to verify the results.

What Burton remembers most about Terry's Freeport visit was Terry's alleged constant references to money, wanting to know who paid and how much. Terry conveyed the impression that he thought Burton was making a great deal of money. The issue of money was not casual. It costs between \$5,000 and \$7,500 for treatment at the Freeport Clinic. This may sound expensive, but it is actually a fraction of the cost of orthodox treatment. It costs a cancer victim about \$23,000 to die of cancer in the United States. Part of the cost is for conventional treatment, such as chemotherapy.

Burton is paid \$30,000 a year for his work. He claims that he puts about half back into the clinic's operation. The clinic's facilities are modern and clean, and its equipment is new and well serviced. A computer aids in the setting of serum doses for patients who have left the island so that serum injections can continue under the supervision of the patient's own physician in the United States. All patients are required to sign a consent form when they come in, which explains the nature of the treatment and states that it is experimental and is not represented as a cure.

THE TEST

One of the interesting outgrowths of Burton's work has been a joint project with Metpath, a mammoth medical testing laboratory located in New Jersey. Nationally known and respected for its meticulous testing, Metpath is vitally interested in the accuracy and practicality of Burton's serum as a cancer-detection test. Metpath's president, Dr. Paul Brown, says, "We are ... looking at how Burton measures one particular substance, the 'blocking protein,' to find out whether that is in fact present or not present in people who have malignant disease."

The contract betwen Metpath and Burton received the commendation of Dr. Paul Rosch, president of the American Institute of Stress, whose special field of interest is the relationship between stress and cancer. At first Dr. Rosch was skeptical about Burton's blood test for early cancer detection and also for uncovering cryptic malignancies that do not show up through any other signs, symptoms, examinations, or tests. Dr. Rosch would

send Burton blood specimens by air express and not indicate anything about the patient's condition just to see whether Burton was able, on the basis of the blood sample alone, to distinguish patients with tumors from those with other conditions, patients with malignancies that were responding to treatment from those who were doing poorly. "Over the course of three months," continued Dr. Rosch, "I sent Burton over one thousand blood specimens." He became satisfied that Burton was on to something big, or, as he described Burton's blood test for detection of cancer, "something which had great merit and potential." Rosch added that Burton's percentage was extraordinarily high in getting the right answers from the blood specimens. "Very impressive."

Burton's test is a means of measuring several specific protein elements in blood. Burton has long identified these specific elements as part of a complex defense system against cancer. By measuring the relative amounts of these elements present in a person's bood, he is able to determine (1) whether the patient's system is effectively battling the cancer, (2) whether the patient's immunological defenses are strong or weak, and (3) whether the tide of battle is running in favor of the cancer or the patient.

The test is thus extremely useful as a diagnostic tool—an objective means of detecting cancer from the blood profile, even in the absence of any positive X-ray findings, tumor mass, or pathological signs or symptoms. But equally important is its "watchdog" usefulness in measuring the results of any treatment, its efficacy or lack of it. The test can alert the physician that his particular treatment regimen is not working, and that a change in treatment strategy is required.

Dr. John T. Beaty, an internist in Greenwich, Conn., is familiar with Burton's unique cancer test and the first experiment conducted by Metpath to gauge the accuracy of Burton's technique. In that experiment Metpath air-expressed 193 numbered vials of human blood samples without any accompanying data to Burton's clinic lab in Freeport. Four of the samples were of patients known to have cancer. Running the specimens through analysis, Burton identified ten blood samples as belonging to cancer patients, including the four cases known to Metpath. The initial opinion at Metpath was that the six additional vials were "false positives"—the equivalent of false alarms. But within two months three of the "false positives" showed clinical evidence of previously undetected cancer, and within six months the remaining three also metamorphosed into cancer status. Thus, Dr. Beaty points out, Burton's analyses were correct in all ten cases, and his test predicted what was not yet apparent. According to sources close to Metpath, that medical lab has repeated the experiment several times with new

batches of numbered vials. Burton's results in all respects paralleled the initial trial in accuracy.

Burton's cooperation with Metpath and others contradicts the accusation that Burton is secretive about his method. In 1978 Burton attempted to reinterest the National Cancer Institute in funding further research and evaluating the progress of patients under his treatment. He submitted several plans to Arthur Upton, NCI's director, including one in which the IRC would absorb all costs. The NCI would select independent oncologists (cancer specialists) to monitor the progress of 1,000 patients. But Upton, on behalf of all U.S. cancer victims, past and present, finally rejected the offers.

Upton alleged that no one in the NCI's vast network of researchers and laboratory technicians had any interest in testing Burton's thesis and results "until after it [Burton's research] has been reported in the literature in full detail to make possible replication"—a Catch-22, considering that Burton has been refused publication.

Burton has achieved his best results with metastatic prostate cancer, melanoma (a type of skin cancer), bladder cancer, and head and neck tumors. He has been the object of both panegyrics and condemnation in the press. Despite his controversial status, many physicians refer their patients to his clinic as a last resort and usually after all conventional therapy has failed. The total remissions achieved in some of these cases are therefore all the more remarkable.

Of Rottino's original team at St. Vincent's, only Burton has continued in the field opened by the team's initial discoveries. Robert Kassel, who went to Sloan-Kettering, is dead. Martin Kaplan and John Harris, who was sent by Sloan-Kettering to collect data but who ended up working with the team, have disappeared, and we were unable to locate them. Rottino remains at St. Vincent's. Friedman, who worked with Burton for 20 years, is now a biology professor. When we tried to contact him in New York, he denied that he was the Friedman we were seeking. Apparently, the memories of the years of frustration are as painful for him as they are for Burton.

THE SCOPES TRIAL

In October 1976 Dr. Burton was still located in Great Neck, N.Y. Dr. John T. Beaty, who had heard about Burton's work, arranged to meet him. A compassionate physician, Dr. Beaty told some of his patients who were suffering and dying

of cancer—their conditions unrelieved by conventional cancer "treatment"—about Burton's work. Some of them sought out Burton, importuned his help, and returned to confide in Dr. Beaty. Beaty agreed to monitor their progress with Burton.

What Dr. Beaty observed in his patients who went to Burton resulted in his open support of the scientist, and he obliged those of his cancer patients who asked him to send their blood samples to Burton. After Burton moved to the Bahamas, those of Beaty's patients who went to the Bahamas for testing and treatment by Burton were monitored by Beaty on their return. Trouble came after an article in the National Enquirer quoted Beaty as supporting Burton's work. The article repeated Beaty's statement that he had recommended about 20 patients to Burton-most of whom were in the terminal stage of their disease-and that half of them had experienced either observable regression of their tumors or notable improvement in their condition.

The result of the article's appearance was, first, Beaty's summary expulsion from the staff of Columbia Presbyterian Hospital in New York City, despite his 30-year affiliation. Next, a charge was framed by the Greenwich Medical Society, accusing him of "unethical conduct" in failing to adhere to the precept that "a physician should practice a method of healing founded on a scientific basis, and he should not voluntarily associate with anyone who violates this principle."

In November 1977 the Greenwich Medical Society, after a hearing, censured Dr. Beaty, a physician with impeccable establishment credentials. Beaty was found guilty of associating with Burton. He also was reprimanded for this association by the Greenwich Hospital, and he continues to be subjected to ostracism by his colleagues. Beaty, a dedicated physician in a small community, was punished because he dared to put his concern for his patients' welfare above the narrow self-interest of the medical establishment.

UNPROVING BURTON

Despite the fact that no one has disproved Burton's theories, he remains on the American Cancer Society's blacklist. As long as his work is maligned by the ACS as "unproven," he will continue to be thought of as a quack, a charlatan, a fraud, by country-club doctors more concerned about maintaining the medical

status quo than about actively seeking the relief of human suffering.

Burton's appearance on the American Cancer Society's blacklist is an affront to reason and common sense. His entire adult life has been devoted to science and scientific discipline. His main work is patented. His degrees are legitimate—Bachelor of Science, Master of Science, and a Ph.D. in experimental zoology.

Because Burton is on the Unproven Methods list, many doctors throughout the United States refuse to cooperate with him, since that would mean associating with a healing method that is "not scientific," even though many other physicians seek him out on behalf of their dying patients and cooperate with him sub rosa.

Burton may or may not have achieved a breakthrough in cancer research. We will not know until he is removed from the unproven list and scientific, not political, considerations are used to evaluate his work. It is interesting to note that one of the accusations against him is that his work is strictly "empirical," that is, knowledge by experience or trial and error. But it is also true that practical experience often provides the basis for legitimate, scientific inquiry, as it has for most of modern medicine.

Finally, there is the question as to why all this happened. There is a problem with Burton's lack of political tact, which makes him unable to work in the political system to his own advantage. Burton's outspokenness often makes him his own worst enemy, but that doesn't make him any less objective.

Burton's history reminds us of what we all tend to forget, that there is an opposing tension between the requirements of knowledge and the requirements of political institutions. The establishment attempts to build faith in itself by convincing the public at large that it knows what it is doing and can handle any situation. If, however, a scientist comes along and proves that the assumptions that give strength to an institution are in fact false or uncertain, then the whole institutional edifice becomes shaky. Belief and faith in the institution are diminished, and its leadership is placed in jeopardy. Rather than risk that possibility, institutions tend to try to control everything, every development, to make certain that any innovation that comes out does so in the establishment's name. History also tells us that innovators like Burton ultimately will prevail and the institutions that attempt to suppress them will disappear and be forgotten. O