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OAK RIDGE ASSOCIATED UNIVERSITIES  
STATEMENT - 10/4/74

REPOSITORY OAK Ridge Ops. (ORO)  
COLLECTION Public Information, M-4  
BOX NO. Active Records Gathered for Human  
Radiation Exp. P.t.  
FOLDER \_\_\_\_\_

Oak Ridge Associated Universities announced on Sept. 25 that its medical research program was being redirected and that, as a result, the small hospital it maintains would be closed the week of Oct. 14. The announcement pointed out that some patients would continue to be treated as outpatients. It also noted that discussions were in progress with the Oak Ridge Hospital of the Methodist Church to make arrangements for those patients who might require continuing hospital care for some time under the direction of ORAU staff physicians.

Since that announcement, however, there has been some misunderstanding by the public and by some patients as to the future treatment that will be available for patients ~~that will be available for patients~~ who have been under the care of ORAU staff physicians.

It is and always has been the intent of the Atomic Energy Commission and ORAU that patients currently under the care of ORAU physicians will continue to receive the medical care they need. The details and nature of this care is a matter for the patients, in consultation with ORAU physicians, to determine in order to assure continuation of proper medical treatment. Many patients, of course, will also wish to consult their private physicians.

In order to insure continuing care by the ORAU physicians, ORAU has for several weeks been discussing patient admission and financial arrangements with area hospitals, principally the Oak Ridge Hospital of the Methodist Church.

(MORE)

ORAU will complete suitable arrangements to assure continuity of medical services prior to closing its hospital facility.

1022267

September 25, 1974

Mr. Marshall Whisnant  
Executive Director  
Oak Ridge Hospital  
of the Methodist Church  
Oak Ridge, Tennessee 37830

Subject: ARRANGEMENTS WITH OAK RIDGE HOSPITAL OF THE METHODIST  
CHURCH - CLINICAL ACTIVITIES OF ORAU MEDICAL DIVISION

Dear Mr. Whisnant:

Pursuant to discussions held with your office by our Assistant Director Paul M. Elza over the past several days, this is to request services of your Hospital and to give notification of changes necessary in our Purchase Order # C-77740 and Subcontract #30.

ORAU plans to terminate October 18, 1974 the clinical program providing bed care for patients. We now have three patients in our hospital who will require continuing hospital care for an indefinite period. To assist us with this matter through next June 30th your hospital is requested to accept these patients for hospitalization upon admittance by our medical staff who will continue to direct their care as admitting physicians. This category of patients is not expected to exceed a total of five. The patients would be admitted in your hospital's regular manner and will be subject to usual and customary charges which are to be collected from the patient to the extent they may now have hospitalization or Medicare coverage. ORAU will pay Oak Ridge Hospital of the Methodist Church, upon receipt of itemized invoices, all normal and customary charges not collectible from the patients. It is understood that patients and physicians would conform fully with your hospital policies and procedures.

In addition to the bed patients our staff will continue to see out-patients, a few of whom may require brief hospitalization from time to time. Our medical staff will schedule these one- to four-day hospital periods for the latter part of the week. Charges would be handled as described above.

Our clinical medical staff is composed of the following physicians:

Gould A. Andrews, M.D.  
Francis A. Goswitz, M.D.  
Helen Vodopick Goswitz, M.D.

C. Lowell Edwards, M.B.  
Karl Hubner, M.D.

1022268

ORAU patients would be admitted by these physicians and patient care would be under their direction in the same manner as admitting physician for any patient of the hospital. It is our understanding that Drs. Francis A. Goswitz and Helen Vodopick Goswitz are under review for admittance to full staff privileges. Drs. Andrews and Edwards have served as consultants to the hospital medical staff. It is requested that the five physicians listed be extended privileges for admitting patients to the Oak Ridge Hospital of the Methodist Church.

Our Purchase Order #C-77740, dated March 27, 1974, with your hospital provides for dietary services, special laboratory and pharmaceutical services, and other special hospital services. All items covered by this Purchase Order, except item 5 - the provision of steam for heat and sterilization, are cancelled effective October 18, 1974. The steam services will need to be continued for an indefinite time into the future. We request that you supply us with a quoted rate per 1000 pounds of steam used and suggest that the rate include an amount to cover your general and administrative services. Upon receipt of this quotation we will issue a new purchase order to cover the steam services and will cancel Purchase Order #C-77740.

Our Subcontract #30, entered into March 8, 1974, provides that ORAU will extend various diagnostic services in nuclear medicine to your hospital. Our capability to provide all services listed and performed in the past will be substantially reduced. Some services we will however be able to continue. For this reason we suggest that your hospital check with our medical staff prior to commitment regarding arrangements for services under this Subcontract.

Some staff association with our clinical activity will be given notice of reduction-in-force to take effect shortly after October 18, 1974 and it appears most of these people prefer to remain in Oak Ridge. We will be pleased to furnish, on your request, personnel information on them so that you may offer employment to any your operation may need.

We shall look forward to hearing from you regarding the acceptability of the arrangements outlined as soon as convenient in order that our planning may proceed in an orderly manner. Your cooperation and assistance is greatly appreciated.

Sincerely yours,

Original Signed By  
PHILIP L. JOHNSON

Philip L. Johnson  
Executive Director

PME:ahp  
cc: Dr. Andrews  
Mr. Rose

1022269

# news release

Oak Ridge Associated Universities  
*Information Services Department*  
P. O. Box 117 / Oak Ridge, Tennessee 37830  
Area Code 615 / Telephone 483-8411

FOR RELEASE: Wednesday, Sept. 25

Oak Ridge, Tenn.--The medical research program at Oak Ridge Associated Universities (ORAU) will be redirected to emphasize basic biomedical research and research into the use of radiopharmaceuticals in the diagnosis of cancer, it was announced today.

As a result, the small hospital maintained by ORAU in Oak Ridge will be closed the week of Oct. 14. Some patients will, however, continue to be treated as outpatients. Discussions are being held with the Oak Ridge Hospital of the Methodist Church to make arrangements for those patients who will require continuing hospital care for some time under the direction of ORAU staff physicians.

The 30-bed ORAU hospital at one time operated near capacity. In its 23-year history, more than 2500 patients have been admitted for treatment. In recent years, however, the number of patients in the hospital has averaged only about seven, although it has been treating approximately 45 outpatients each week.

1022270 (MORE)

ORAU's medical division has been an important cancer research center since it was formed at the request of the Atomic Energy Commission in 1950. In keeping with this, ORAU and the University of Tennessee are discussing the development of a clinical program with the East Tennessee Cancer Research Center, which is to be located at the University of Tennessee Memorial Research Center and Hospital in Knoxville.

The medical division, working in collaboration with Oak Ridge National Laboratory, has been a leader in the search for radiopharmaceuticals that can be used in cancer detection and therapy, in a program under Dr. Raymond L. Hayes. After the closing of the inpatient facility, the research program in diagnostic uses of radioisotopes will continue to be carried out on an outpatient basis under the direction of Dr. C. Lowell Edwards.

Among the division's better known nuclear medicine programs is the Cooperative Group to Study Localization of Radiopharmaceuticals. The group includes staff members of 16 medical schools and hospitals.

The medical division is also a leading center for research and training in the management of radiation injuries. Dr. Gould Andrews, chairman of the division, and senior scientist Dr. C.C. Lushbaugh are considered authorities on the treatment of radiation accident victims. This program is expected to be expanded in cooperation with Roger Cloutier, chairman of the special training division of ORAU; the health division of Oak Ridge National Laboratory; and the Oak Ridge Hospital of the Methodist Church.

(MORE)

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The division has two important centers of basic biomedical research: the biological chemistry group under Dr. Fred Snyder and the Marmoset Research Center under Dr. Nazareth Gengozian. Both of these programs will continue, probably on an expanded basis.

Snyder's team is concentrating on the study of fatty substances, called lipids, and their function in cells. This team has discovered a rare group of lipids characteristic of most cancerous cells in animal and man. It is hoped that the results of this research will eventually contribute to the broader goal of prevention, diagnosis, and treatment of cancer.

The Marmoset Research Center, with its large colony of the South American primates, is focusing upon studies in immunology and cancer of the colon, which the marmoset develops spontaneously.

In addition to these teams, the medical division conducts a variety of other basic biomedical research efforts, supported both by the AEC and other government and private agencies.

ORAU is a nonprofit educational and research corporation of 42 universities and colleges in the South. It operates under a prime contract with the AEC, as well as with funds from other private and government organizations.

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9/25/74

"until the Industrial Revolution man was largely confined to the fertile sites of the earth." These sites, which provide the plants and animals which remain his major sources of food, are the most threatened by population growth. Man is being forced to farm poorer land, taking with him crops more or less unsuited to the new lands. The fragile ecosystems of these primarily tropical lands are being rapidly destroyed, leaving no time for the economic potential of indigenous plants to be evaluated and developed.

If a lack of funds hampers conservation of germplasm resources, a lag in policy is also deplored by some. Ashton notes that the economics of world agriculture are not static. The era of cheap energy, fertilizers, and pesticides from petroleum is ending. Current methods of farming rely on large inputs of fertilizer and water and little human labor to raise a narrow range of crops. Population growth, a shortage of arable land, and rising oil prices make it advisable to consider different approaches. Many

LDC's have a wide variety of indigenous crops. These are not as productive as hybrids under present conditions, but may be advantageous for some LDC's to turn to agro-forestry, for example, planting fast-growing trees for fuel in rotation with food plants. Multiple cropping of several crops in the same field may be the answer to higher production in other places.

The point, says Ashton, is that a totally different attitude toward agriculture should be encouraged, suggesting that the small-is-beautiful approach to alternative technology advocated by Ernst Schumacher has much to commend it.

Ashton concedes that the problem is "many faceted and, therefore, difficult to get across." More organizations are showing interest—USDA and AID, for example, as well as nongovernmental organizations such as the World Wildlife Fund and International Union for the Conservation of Nature, says Ashton. But "there is a lack of communication. Nobody is running the show." More-

over, he sees far too little evidence of concern in influential political quarters.

The possibility of change in that respect may be read into the scheduling of a U.S. Strategy Conference on Biological Diversity in Washington on 16 to 18 November sponsored by the State Department and AID. The agenda calls for a discussion of "crop and noncrop plants, trees, domesticated and wild animals, microbial organisms, ecosystems, aquatic resources and genetic engineering applications." About 100 resource managers and technical experts from the United States are being invited along with some foreign participants. The aim is to consider steps the United States might take to preserve biological diversity throughout the world. Since the strategy session is the first such conference convened by the Reagan Administration, it is considered a boost for biological diversity.

Meanwhile the voices crying in the wilderness are warning that the wilderness is fast disappearing.—JOHN WALSH

## Gore Investigates Radiation Clinic

*Hearing finds no evidence that patients were mistreated in research on space hazards*

Congress recently looked into some well-publicized charges that cancer patients at a hospital in Tennessee were given nontherapeutic doses of radiation to produce data for the space program. The results were mixed. While the findings raised questions about the quality of care at the clinic, they did not substantiate the charges of misconduct, which had received national attention in August (*Science*, 4 September, p. 1093).

The hearing was held on 23 September before the House science and technology subcommittee on investigations, chaired by Representative Albert Gore, Jr. (D-Tenn.). Gore picked his way carefully through the evidence, laying out a record that essentially faults the clinic for operating at less than the highest medical standards in the 1960's and 1970's, but fails to support the charge that patients were used in a callous fashion to generate data on space hazards.

Much of the testimony focused on the case of Dwayne Sexton, a child with acute leukemia who was treated at the Institute of Nuclear Studies (INS) in Oak Ridge, Tennessee, from 1966 to 1969. He

died there in 1969 at the age of 6½. Early press accounts suggested that Sexton was needlessly given radiotherapy as part of a program to collect data for the National Aeronautics and Space Administration (NASA). The evidence did not support this allegation. Indeed, the hearing produced little new information on the NASA-sponsored research.

Witnesses did raise questions about the quality of care Sexton received, however. One physician said that it may have been wrong to involve the child in an immunologic experiment at INS before he had been given a standard course of chemotherapy. Gore questioned some of the former INS researchers about the wisdom of conducting experiments in which people were exposed to radiation at low dose rates for prolonged periods. But medical witnesses said the experiments seemed reasonably well run, given the state of knowledge about radiotherapy in the late 1960's.

The inquiry was limited because there were many gaps in the record. Andrew Stofan, a NASA official, disclosed that all of NASA's documents on the INS

research, which ran from 1964 to 1974, had been thrown out in the course of routine housecleaning. Gould Andrews, INS' chief medical investigator, whose testimony would have been valuable, died last year.

The INS clinic was closed in 1974 after a review committee decided that it would cost too much to bring the facilities into compliance with the health and cleanliness standards enforced at that time by the big insurance companies. The staff and facilities were incorporated into the Oak Ridge Associated Universities.

As the hearings revealed, INS had several goals, which at times may have been in conflict. First, the clinic sought to help cancer patients by giving them a variety of treatments, including chemotherapy, which one INS staffer referred to as a "competitor" with the clinic's specialty: radiotherapy. A second goal was to develop new techniques for treating cancer with radiation. Third, some of the researchers were being paid by NASA to collect information on the effects of small doses of radiation on man. NASA wanted to know, for example,

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whether the radiation emitted by solar flares would fatigue or sicken astronauts in space.

The fundamental questions Gore asked were: Did the Institute's desire to collect experimental data affect choices of therapy, and did the therapy harm the patients? The hearing demonstrated that some of the research was closely coordinated with the effort to collect data for NASA. It did not show that patients were harmed or deprived of good medical care because they participated in experiments. In fact, many were given conventional therapy and benefited from it. Those who volunteered for experi-

ment forms used did not meet the highest standards.

The Sexton case did not cast light on the controversy involving low-level radiation studies of interest to NASA. Sexton, after all, was exposed to a high level of radiation. Officials who were at INS argue that the Sexton case would not have been included in NASA's data bank under any circumstances, because NASA was interested only in adults.

Nevertheless, Gore did produce evidence showing that INS researchers felt pressure to find data for NASA. In the example that Gore cited, the INS' medical director Andrews—to his credit—

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## Andrews—to his credit—refused to participate in what he considered unethical experiments involving prisoners in California

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mentation had failed to respond to standard treatment. That, at least, was how the system was supposed to work. Whether or not it did in every case is not as clear.

Mary Sue Sexton, mother of Dwayne, told the subcommittee that she felt she had been "betrayed . . . lied to, and misled" by the physicians at the INS clinic. She had not felt that way at first, she explained, but only after she learned recently from a journalist that her son might have lived if he had been given a course of standard maintenance chemotherapy. Instead, he was given a partial course of chemotherapy and then an untried form of immunologic therapy. The treatment failed. The child was then given "maintenance chemotherapy," and, when all else had failed, a single large dose of gamma radiation.

Although Mrs. Sexton said that she was not fully informed of the risks that she and her son were taking, she did sign a consent form that described the proposed experiment in simple terms and noted that conventional treatment had been freely offered as an alternative. The Sextons clearly volunteered.

The subcommittee called on two scientists as independent commentators: Robert Wiernik, director of the Baltimore Cancer Research Center, and Eli Glatstein, chief of the radiation oncology branch of the National Cancer Institute. Neither found any evidence in the material produced for the hearing that patient care at the INS clinic had been altered to suit NASA's needs. At the same time, they said, the research protocols and

refused to participate in what he considered unethical experiments involving prisoners in California, as had been proposed with "enthusiasm" by a NASA official.

Gore also quoted from an INS budget report to NASA on low-dose radiation experiments planned for 1970 which said: "An active canvassing program for increasing our utilization of these facilities has been developed. . . . We anticipate that this program will produce a greater influx of patients than we have experienced in the last 2 years." The same memo informed NASA that "We now believe we are ready to use regularly spaced, carefully selected, repeated small exposures over a small period of many months in an effort to maintain more uniform control of disease. . . . We will use therapeutic irradiation scenarios derived in part from 'space radiation profiles.' . . . These may be based either on intelligent conjectures or actual experience measured in space. . . ." However, Gore did not cite evidence showing that this desire to please NASA had any detrimental impact on care at the INS clinic.

Gore said that he had called the hearing to find out "whether the people involved in this program were treated in the best possible way for their welfare or whether they were in any way dehumanized in the search for some other social good." Neither he nor the committee staff has passed judgment on that question yet, but they promise to do just that in a written report now being prepared.—ELIOT MARSHALL

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## Arms Control Teaching Planned by Scientists

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The subject is Armageddon. People meeting to learn about college campuses this fall will be gathering to hear revivalist preaching. On the contrary, they will be given by some profound material nuclear physicists, computer scientists and electrical engineers. America's best universities.

The occasion, scheduled for Armageddon Day, 11 November, is called the "Convocation on the Occasion of Nuclear War." The prime sponsor is the Union of Concerned Scientists (UCS), an independent group with strong ties to the Massachusetts Institute of Technology (MIT).

The purpose of the campaign according to a draft statement circulated by UCS, is to educate Americans about the "threat of nuclear war and the growing possibility of nuclear annihilation and the urgent need to reduce risks. . . . If properly organized, these events will identify a group of individuals who might participate in help" organize future arms control efforts.

To insure that the message goes beyond the confines of academia, UCS has budgeted for expenses about \$50,000 and secured the services of some skilled political advisers. Of these are Carl Wagner, a top field campaign manager for Sen. Edward Kennedy (D-Mass.), and David Brunell, a longtime activist in congressional reform movements.

The person who conceived the campaign is Henry Kendall, chairman of the board of UCS and a professor of physics at MIT. In January he commissioned an in-house study of technological and political factors inhibiting arms control. By June he had become so concerned about the chaotic state of U.S. weapons policy that he felt some emergency action was called for. Until recently, the UCS had focused chiefly on the commercial nuclear sector. Suddenly, arms control has been made the first priority. Kendall insists, however, that older projects will not be neglected as a result.

Kendall and UCS' executive director, Eric Van Loon, say they have been surprised by the strength of the response they have received. The

1022274

Report on Congressional Hearing by  
House Science and Technology Subcommittee on Investigations and Oversight  
Chaired by Rep. Albert Gore, Jr. (D-Tennessee, Fourth District)  
Regarding the Mother Jones Controversy

In mid-August, 1981, promoters of an article scheduled for the September-October edition of an antinuclear publication entitled Mother Jones charged that the Oak Ridge Institute of Nuclear Studies (as ORAU was known before 1966) had used patients as "human guinea pigs" without their consent in experiments to provide data for the National Aeronautics and Space Administration.

National television and other news media had been contacted to detail charges in the article, "Informed Consent," with subheads "How Much Radiation Can An Astronaut Withstand? NASA Used Dwayne Sexton to Find Out." Specifically the article charged that ORAU's Medical Division had experimented unethically to find beneficial applications of nuclear energy and help NASA without regard to the best interests of patients. As a focused example, the author Howard L. Rosenberg alleged that medical assistance to one young patient (Sexton) had been inadequate and improper (e.g., that radiation levels were too high). Rosenberg also claimed that clinical facilities were substandard and produced little of research value. As a result of the charges, Congressman Albert Gore, Jr. (D-Tennessee, Fourth District) scheduled hearings subsequently held September 23 in Washington before the House Science and Technology Subcommittee on Investigations and Oversight.

The response of U.S. Department of Energy and Oak Ridge Associated Universities officials was prompt and effective:

1. On August 20, 1981, the same day that promoters of the magazine article had a Washington press conference, a DOE-ORAU press conference was held at ORAU in which DOE's Dr. William Bibb and ORAU's Dr. C. C. Lushbaugh countered the magazine charges and outlined the true background and purposes of the program. The weight of the evidence was clearly against Mother Jones. Local newspaper and TV coverage was overwhelmingly supportive of ORAU. Specifically, DOE/ORAU efforts communicated:
  - A. Patients were never "used as human guinea pigs" in the sense conveyed by the Mother Jones article; i.e., as unknowing victims of experiments for purposes without regard to their best interests. The patients' needs always came first.
  - B. Dwayne Sexton, the child exploited in the Mother Jones article, did not receive high levels of radiation "to test man's tolerance of radiation in space," but in a last-ditch effort to save his life. Conventional chemotherapy and other treatments had failed. The child was dying after more than three years of various therapies in the ORAU hospital and clinic; his doctors concluded that the high levels of radiation were essentially the only means left to extend his life. In fact, he had lived 3.5 years after first entering our clinic with acute lymphocytic leukemia.

- C. It is true that patients did receive **experimental** treatments with total body irradiation and that some of the data was used as part of a retrospective study to determine levels of human radiation tolerance. However, the treatment protocols were **not** influenced or biased in any way to enhance these evaluations. This study also examined 3000 patient records from 45 other hospitals that used total body irradiation in leukemia therapy. Ironically, the Sexton boy's irradiation therapy actually occurred after ORAU had completed the report to NASA and the National Academy of Sciences on high-level radiation in 1967--the year before the Sexton boy died. In 1968 the primary clinical research interest was in protracted and fractionated low-level radiation and not in single-dose exposures.
- D. The child's parents were fully informed about the treatment--both verbally and in explanations written in lay language and signed by Mr. and Mrs. Sexton. The parents clearly gave ORAU their informed consent.
- E. Although some program reviewers questioned the research value of some of the work of the clinic and the quality of the general facilities, the fact is that patient requirements always came before experimental needs for data, and good equipment was more important than high-quality buildings per se. The research clinic operated as well as possible within available government funds, making substantial contributions to the development of nuclear medicine over the past 30 years.
2. At the Gore subcommittee hearings, the points outlined above and many others were effectively presented by both DOE, ORAU, and former clinic employees and patients. Immediately following the hearings, Rep. Gore was quoted as saying the Mother Jones charges had been "essentially refuted." A report from the House subcommittee is expected late this fall.

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