

Sept 22, 2005

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Department of Health and Human Services  
National Institute for Occupational Safety and Health (NIOSH)  
Robert A. Taft Laboratories, MS-C34  
4676 Columbia Parkway  
Cincinnati, OH 54226

RE: Lawrence Livermore National Laboratory (LLNL)-Site Profile Complex 321.

My name is \_\_\_\_\_ and I was employed as a \_\_\_\_\_ Lawrence  
Livermore Laboratory in Livermore, CA \_\_\_\_\_ until \_\_\_\_\_.

During my employment I believe I was exposed to many toxic and harmful fluids and materials.

When I was first assigned to \_\_\_\_\_, Bld. 321 on swing shift we were involved in machining tantalum and Tungsten using Tetrachloroethylene (Perk) as a cutting fluid and cooling agent. This work was done without any vacuum or vapor containment. This was continued for more than 2 years. Hazard control presence was negligible during this time. Most of my fellow workers in the shop that did this work were adversely effected.

These Were:

1. \_\_\_\_\_ with multiple malignant Melanomas, Basil and Squamous cell cancers. Many still reoccurring.
2. \_\_\_\_\_ who died of Lung Cancer.
3. \_\_\_\_\_ who had Pituitary Cancer (blind).
4. \_\_\_\_\_ who had cancer.
5. \_\_\_\_\_ a Senior Machinist Cancer-deceased.
6. \_\_\_\_\_ had cancer is deceased.

This was a high incidence of cancer for a small shop.

I was later transferred to the \_\_\_\_\_ Shop that machined BE, D-38, Thorium, Tantalum, Tungsten, and Orallo. After a year I was transferred to the \_\_\_\_\_ where we assembled parts for Hydro and Nuclear tests. We were assigned to assist coordinators for Nuclear Explosive Engineering and also weapon divisions. This was to assist in the fielding of these tests which included: firestorm series, Halite and one shot for Los Alamos (Muggans). My Supervisor in Nevada was \_\_\_\_\_, Design Engineer and \_\_\_\_\_, designer (deceased). I was the machinist available while assembling these shots on site with our shop in a trailer at the shot site. The capsules were kept in a temporary enclosure. I supported both L.L.N.L. and Los Alamos teams. The site was a quarter mile north east from the Sudan Crater which emits a continuous radiation.

Sincerely

Solvents are missing from LLNL forms:

- a. Perchloroethylene Perk printed out, see ATSDR report
- b. Trichloroethylene see ATSDR report
- c. MEK methyl ethyl ketenes Ethylene Dichloride
- d. Acetone
- e. Isopropyl Alcohol = Refers to three Carbon structures that is attached in the middle – Isopropyl Acid
- f. Ethyl Alcohol 198 Proof
- g. Ethanol/grain
- h. Numerous others.

These solvents were contaminated with different metals

- a. D 38
- b. U-235
- c. Beryllium see ATSDR report
- d. Lead see ATSDR report
- e. Copper see ATSDR report
- f. Tungsten see ATSDR report
- g. Oralloy (HEU/highly enriched uranium) oralloy (uranium highly enriched in U-235)
- h. Thorium= Thorium is used in a wide array of products and processes, where its special properties make it useful when light or high temperature are involved. Handling and disposing of Thorium is a challenge, as it is radioactive and when it decays, and produces Radon gas (also historically called Thoron). Th-227 and Th-228 when contained in a device, or a source for use in a device, in quantities of less than 100 millicuries of alpha activity (3.12 micrograms Th-227 or 122 micrograms Th-228) per device.
- i. Vinyl chloride+ Polyvinyl chloride = is a human carcinogen; may effect the central nervous system causing dizziness, head aches, giddiness, unconsciousness
- j. Carbon Tetrachloride = Hazard to health, can damage lungs, liver, kidneys and nervous system. Carbon Tetrachloride has been found to cause cancer in animals. ERA, IARC, HHS has determined that Caron Tetrachloride may reasonable be anticipated to be a carcinogen.
- k. Ethanol
- l. Tantalum = Radioactive with a very long half life. At high temperatures Tantalum becomes more radioactive. Tantalum oxide is used to make glass with high refraction for camera lens. In Russia it showed Radiological signs of Early Pulmonary Fibrosis- 2 cases Chronic Atrophic Rhinitis. Working of Tantalum metal presents the hazards of burns.
- m. Chromium = contaminates work place air and of skin on contact Chromium (VI) it can damage the nose and cause Cancer. Can cause skin ulcers world Health Org. (WHO) and DHHS & EPA has declared that Chromium (VI) is a human carcinogen.
- n. D-38 left in shop, sat next to workers for 2-3 months

- o. Welding rods
- p. TU shop lithium hydride = Health effects: Irritation-eye, nose, throat, skin, ---Marked (HE14) Lung damage (HE111 CNS effects (HE7) , Respiratory system, skin, eyes.
- q. Tetrachloride
- r. Cadmium in silver solder= Cadmium damages lungs, kidney disease and may irritate the digestive tract.
- s. Benzyl Chloride= Powerful Lachrymator/hazardous
- t. Graphite dust
- u. Zirconium/Zirealloy
- v. Tritium **Tritium Analysis**

Tritium is the radioactive isotope of hydrogen ( half-life of 12.32 years, decay rate of 5.626 % per year). Tritium is produced naturally in the upper atmosphere by cosmic radiation. It can replace hydrogen in H<sub>2</sub>-gas, forming HT, and in water, forming HTO. The release of excess tritium into the atmosphere from nuclear weapons tests conducted between 1952 and 1963

# Dermatologist challenges sun-melanoma link

■ Doctor routinely diagnoses cancer but also enjoys time in the sun

By Gina Kolata  
NEW YORK TIMES

Dr. A. Bernard Ackerman, a dermatologist, spends much of his time diagnosing the potentially deadly cancer melanoma and other skin diseases.

But when he returned from a recent trip to Israel, he was, well, deeply tanned.

Burnished brown, in fact.

Ackerman did not use sunscreen on his trip. He did not give any thought to the hundreds of moles that speckle his body. He did not even put a hat on his bald head.

Other dermatologists may worry about getting melanoma from exposure to ultraviolet rays. But Ackerman, 67, a renowned expert in the field and the emeritus director of the Ackerman Academy of Dermatopathology in New York, said the link between melanoma and sun exposure was "not proven."

He has scrutinized, one by one, the widely held precepts about melanoma and the sun and found the evidence wanting. "The field is just replete with nonsense," he said.

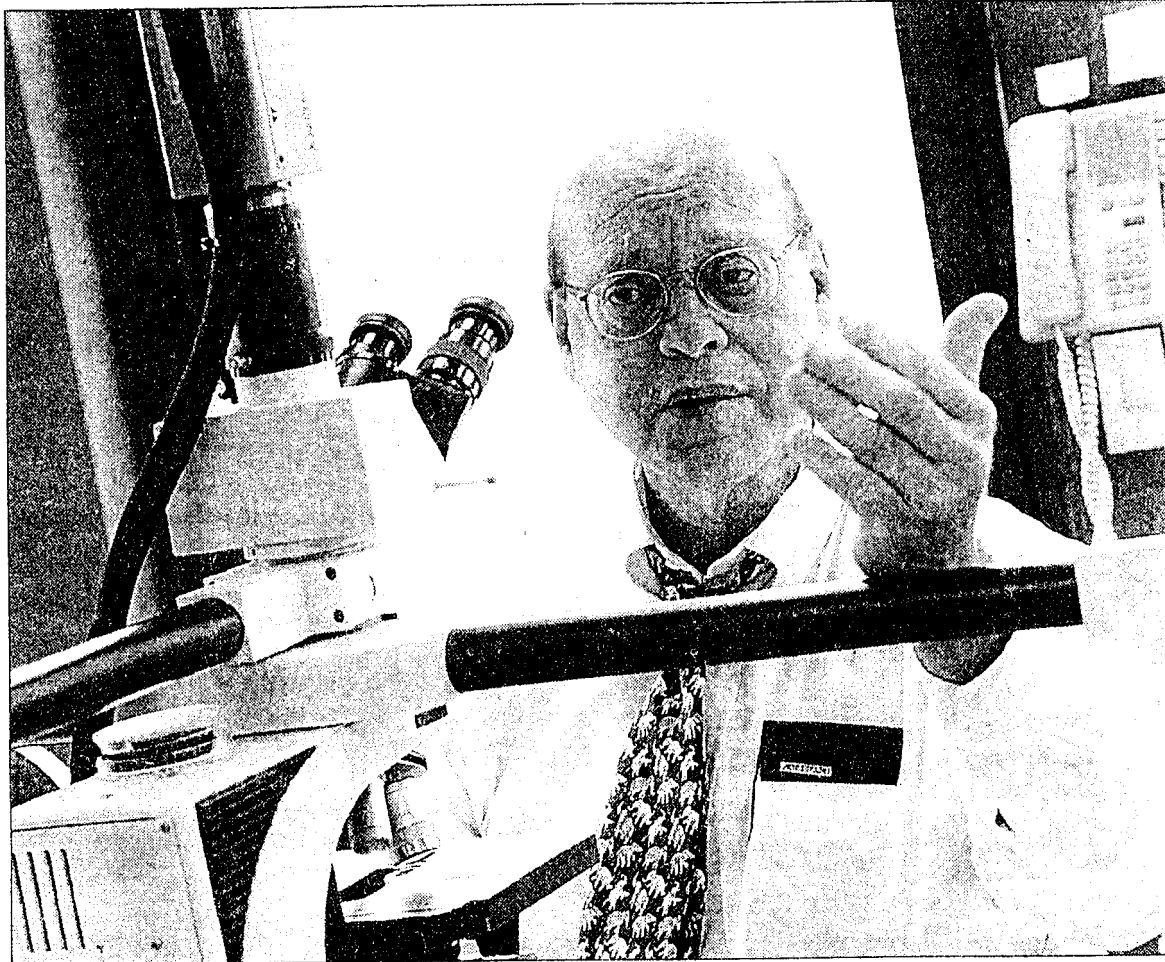
For example, it is commonly assumed that painful or blistering sunburns early in life set the stage for melanoma later on. But while some studies show a small association, Ackerman says, others show none. And even studies that do show an effect disagree on when the danger period for sunburns is supposed to be.

Taken as a whole, Ackerman argues, the research is inconsistent and fails to make the case.

Common wisdom also has it that sunscreens protect against melanoma. But Ackerman points to a recent editorial in the journal *Archives of Dermatology* concluding that there was no evidence to support that idea.

Finally, many people assert that the more intense a person's sun exposure, the greater the risk of melanoma.

For example, Darrell Rigel, a New York dermatologist, points out that the incidence of melanoma increases as distance



DR. A. BERNARD ACKERMAN, emeritus director of the Ackerman Academy of Dermatopathology in New York, has spent much of his career in the field of skin cancer and believes that doctors have "not proven" the link between melanoma and sun exposure.

reason to conclude that sun exposure causes melanoma.

But it is not compelling to Ackerman. Epidemiological data on melanoma, he says, are imprecise and inaccurate. In searching for the causes of other cancers, he argues, epidemiological data have led researchers astray, and by their nature, they cannot demonstrate cause and effect.

Stay out of the sun, Ackerman advises, but do it to avoid premature aging of the skin. If you are very fair, avoiding sunlight will also help prevent squamous cell carcinoma, a less dangerous cancer. But it would be a mistake, he says, to assume that avoiding sunlight or using sunscreens will offer protection from melanoma.

Ackerman has been enamored of skin and its diseases since his earliest days as a resident at Columbia. Studying dermatology to him was like tak-

He has spent most of his career in academia and has published 625 research papers. His list of honors and awards includes this year's Master Award, given to one person a year by the American Academy of Dermatopathology.

In 1999, he started his own academy, supported by AmeriPath, a company that owns pathology laboratories. "I had nothing to sell — I was always in university life," Ackerman said. "If you'll excuse the expression and not think I'm a tart, they bought me."

His academy, he says, is now the world's largest training center for dermatopathology.

Ackerman, who is paid a flat salary, and his six associates examine more than 100,000 specimens and have done more than 4,000 consultations each year. Ackerman continues to teach

whether the "epidemic" of melanoma proclaimed by many dermatologists exists. The definition of the cancer, he says, has changed over time, leading doctors to diagnose, remove and cure cancerous growths that once would not have been called melanoma.

"The criteria today, clinically and histopathologically, are diametrically different from those 30 years ago," he said. In medical school, he continued, "we were taught that melanoma is a big, black, fungating tumor that kills. Who would have believed then that you can recognize melanoma for what it is when it is small and flat and the size of the fingernail on your pinky? You would have said they were insane."

Anyone who argues that sun exposure causes melanoma, Ackerman says, needs to explain it is

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Other dermatologists may worry about getting melanoma from exposure to ultraviolet rays. But Ackerman, 67, a renowned expert in the field and the emeritus director of the Ackerman Academy of Dermatopathology in New York, said the link between melanoma and sun exposure was "not proven."

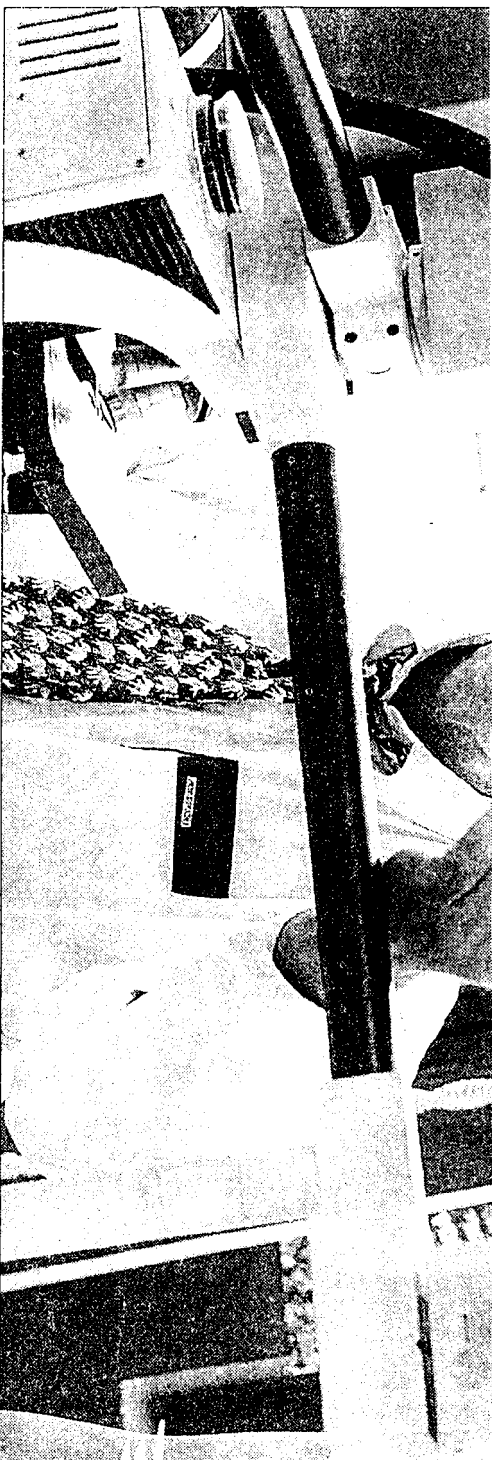
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For example, it is commonly assumed that painful or blistering sunburns early in life set the stage for melanoma later on. But while some studies show a small association, Ackerman says, others show none. And even studies that do show an effect disagree on when the danger period for sunburns is supposed to be.

Taken as a whole, Ackerman argues, the research is inconsistent and fails to make the case. Common wisdom also has it that sunscreens protect against melanoma. But Ackerman points to a recent editorial in the journal Archives of Dermatology concluding that there was no evidence to support that idea.

Finally, many people assert that the more intense a person's sun exposure, the greater the risk of melanoma.

For example, Darrell Rigel, a New York dermatologist, points out that the incidence of melanoma increases as distance to the equator decreases. Rigel, a past president of the American Academy of Dermatology and the lead editor of "Cancer of the Skin," a major textbook in the field, cites this as a compelling



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Ackerman has been enamored of skin and its diseases since his earliest days as a resident at Columbia. Studying dermatology, to him, was like taking courses in art history. "If you know a certain artist, you can recognize him again," he said. "So it is with lesions in the skin. A lesion is like a painting or a

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Ackerman, who is paid a flat salary, and his six associates examine more than 100,000 specimens and have done more than 4,000 consultations each year. Ackerman continues to teach, write, ask for data and question his field's conventional wisdom. Challenging the link between sun and melanoma is part of this pattern.

whether the "epidemic" of melanoma sites — the leg in women, the trunk in men — are dermatologists exists. The definition of the cancer, he says, has changed over time, leading doctors to diagnose, remove and cure cancerous growths that once would not have been called melanoma.

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Anyone who argues that sun exposure causes melanoma, Ackerman says, needs to explain why blacks and Asians get melanoma almost exclusively on skin that is not exposed to sunlight: the palms, soles, nails and mucous membranes. Even in

the most common melanoma sites — the leg in women, the trunk in men — are hardly the most sun-exposed body parts. It is not a popular argument. Rigel, reached by telephone in Hawaii, where he was vacationing, said it was perverse of Ackerman to pick the data apart.

Melanoma, Rigel said, can occur "where the sun doesn't shine." But that is because sunlight suppresses immune cells in the skin's surface that ordinarily hold cancer at bay, he said.

He himself stays pale, even in Hawaii, that land of intense sunlight. "I'm a dermatologist," he explained.

Ackerman does not buy the immune-system argument. It is a hypothesis to support the hypothesis that sun exposure causes melanoma, he says. But it is not evidence.

Of course, Ackerman adds, he could be wrong. "If the evidence were compelling, I'd be the first to capitulate," he said. "I'd say, 'I tip my hat to you. Well done.'"