

FILE: This "packet" xeroxed to
F.E. Kearney; also mailed cc's to him
SBN called him to inform him to have
his secretary pick it up at DEX.
SBN 1/26/82

Research showing a "statistically significant" incidence of rectal cancer cases among former Monsanto Co. employees who worked at the Springfield plant is not conclusive, according to the scientist who conducted the study.

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Cancer study results called 'inconclusive'

Research showing a "statistically significant" incidence of rectal cancer cases among former Monsanto Co. workers is not conclusive, according to the scientist who conducted the study.

Dr. Gary Marsh, assistant professor of biostatistics at the University of Pittsburgh, examined records of about 2,500 people who had worked at the Monsanto plant in Springfield between 1949 and 1966.

The study was made for Monsanto by the University at the request of Local 288 of the International Union of Electrical Workers, which represents Monsanto employees, to look into what the union saw as high cancer incidence at the plant.

"There was a (statistically) significant excess for the rectal cancers, but that was the only significant finding in the whole report and you can't place much weight on it," Marsh said.

He said the results of the study did not support the hypothesis that digestive tract or genital-urinary tract tumors were related to general exposure to chemicals in the plant or were related to when workers were hired.

It found that such cancers, except for tumors of the prostate gland or rectum, were not related to employment at any of 21 specific stations at the plant, he said.

Of chemical workers with prostatic cancer, 29 percent had worked in polystyrene processing, but that was not considered statistically significant, he said.

Among workers with rectal cancer, 57 percent had worked in cellulose nitrate production, and that was considered a statistically significant excess of tumors. But, Marsh said, there is no recent literature linking bowel cancer with exposure to cellulose nitrate.

He said, "We tried to identify a particular workplace or agent they (workers) were exposed to that could have been related to this (cancer)

excess, but the only thing that came out of the report was this rectal thing."

As a result of the findings, Marsh's report recommended "updating the original Springfield study ... so as to better assess the possible risk."

An earlier study suggested there might be an excess of digestive tract cancers and tumors of the genital-urinary system, mostly the prostate gland.

A separate study by a research group from the University of Massachusetts found cancer deaths among former workers at the Springfield plant could be linked to materials used in making vinyl chloride and polyvinyl chloride, the man who headed that study said.

Dr. Kenneth Rosenman, formerly of the university's Division of Public Health in Amherst, said the investigation of 110 people who worked at the plant from 1950 to 1973 found 34 had died of cancer.

"People who worked there longer, who had a longer latency period, had higher risks of dying of all malignant neoplasms," he said earlier this month. Rosenman is director of occupational and environmental health services for New Jersey.

"The results of the Rosenman study are not confirmed by the University of Pittsburgh study," was the response from James Shriver, manager of the Springfield Monsanto plant.

"The principal difference is that the University of Pittsburgh study shows that those employees who died of digestive cancer were less likely to work for a long period of time with vinyl chloride," Shriver said.

"The information we have from the (Pittsburgh) study shows this (long exposure to vinyl chloride) is not the case" in studied cancer-related deaths.

1/25/82

New Monsanto study probes cancer links

By MAUREEN FITZGERALD

An updated study of the Monsanto Company chemical plant in Springfield has documented an excess in rectal cancer deaths among former workers there.

However, the scientist who conducted the research said he could not conclude that the higher incidence of cancer was linked to conditions at the chemical plant.

"I'm not sure about Springfield. There's too many ifs," said Dr. Gary M. Marsh, an assistant professor of biostatistics at the University of Pittsburgh, in a telephone interview today. Marsh conducted the study under contract with Monsanto Co.

"I did find potential problems that need further studies," said Marsh. The findings have to be maintained for a number of years to establish a "causal association" as opposed to a "random association," he added.

Several studies have documented cancer death rates among former Monsanto employees that are higher than expected among Hampden County residents. Marsh's study is the fifth conducted at the plant since 1977.

Marsh said he had not read, and therefore could not comment on, another study of the Monsanto plant done by a research team at the University of Massachusetts in Am-

herst.

The UMass study found an increased cancer-death rate may have been caused by exposure to materials used in making plastics at the plant, specifically the production of polyvinyl chloride and vinyl chloride.

However, Marsh said that he studied those two departments and found no excesses in the cancer-death rate.

The differences in the two studies may be attributed to a different sample of workers, Marsh said.

Marsh examined the records of approximately 2,500 people who had worked there between 1949 and 1966. While the UMass team traced the medical histories of 622 employees who worked in the production of polyvinyl chloride and vinyl chloride between 1950 and 1973.

Marsh's most recent study, which looked at specific work sites, followed up an earlier overall study of the plant. In Marsh's earlier overall study, he found a 40 percent higher rate of digestive cancer, and 53 percent higher rate of cancer in the genito-urinary system.

He could not draw any conclusions from this study however, because he did not know the work-history of the workers, and he could

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not establish a "cause-specific" analysis for the higher incidence of cancers.

When he re-evaluated his results on a site-by-site basis, he found that there were no patterns of workers in a certain department contracting a certain kind of cancer, except for the higher rectal cancer rates.

"There was a significant excess for the rectal cancers," he said. "But, that was the only significant finding in the whole report, and you can't place much weight on it."

He said the results of the study did not support the hypothesis that digestive tract or genital-urinary tract tumors were related to general exposure to chemicals in the plant or were related to when workers were hired.

It found that such cancers, except for tumors of the prostate gland or rectum, were not related to employment at any of 21 specific stations at the plant, he said.

"We tried to identify a particular workplace or agent they (workers) were exposed to that could have been related to this (cancer) excess, but the only thing that came out of the report was this rectal thing."

As a result of the findings, Marsh's report recommended "updating the original Springfield study...so as to better assess the possible risk."

However, Dr. Kenneth Rosenman, formerly of the university's Division of Public Health in Amherst, who headed the UMass study, said that his study documented that workers in the polyvinyl chloride and vinyl chloride departments had contracted types of cancer that have been identified as being caused by those chemicals.

Rosenman said his results were "biologically" significant, because he documented cases of lung cancer, mouth, digestive and lymphatic cancer that earlier studies linked to those chemicals.

The risk of contracting cancer also increased with the period of time individuals worked at the plant, Rosenman said earlier this month. Rosenman is now serving as director of Occupational and Environmental Health Services for the state of New Jersey.

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Researcher Downplays Monsanto Cancer Data

BOSTON (AP) — A finding of a statistically significant number of rectal cancer cases among former workers at the Monsanto Co. chemical plant in Springfield has been downplayed by the scientist who conducted the study.

Dr. Gary Marsh, assistant professor of biostatistics at the University of Pittsburgh, examined the records of approximately 2,500 people who had worked there between 1949 and 1966, in making the study for the Monsanto Co., owner of the plant.

"There was a (statistically) significant excess for the rectal cancers," he said. "But, that was the only significant finding in the whole report, and you can't place much weight on it."

He said the results of the study did not support the hypothesis that digestive tract or genital-urinary tract tumors were related to general exposure to chemicals in the plant or were related to when workers were hired.

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He told The Boston Globe, "we tried to identify a particular workplace or agent they (workers) were exposed to that could have been related to this (cancer) excess, but the only thing that came out of the report was this rectal thing."

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