

He proposed that Dow perform similar studies on VCM, and estimated that they could do so at a cost of about \$18,000.

11. Progress Report on European Studies

Dr. Duffield summarized present observations on the European studies. These now cover almost eighteen months of post-exposure history following the one year of vapor exposures. Groups of approximately 70 animals were exposed to 10,000, 6,000, 2,500, 500, 250, and 50 ppm of the monomer. The incidence of tumors in each group, and the numbers of remaining survivors, are indicated in the following table.

Exposure Level (ppm-VCM)	10,000	6,000	2,500	500	250	50	0	2500 ppm Vinyl Acetate
Zymbal Gland Carcinomas	13	5	2	2	0	0	0	0
Liver Carcin- omas Angio- sarcomas	6	11	9	7	2	0	0	0
Kidney Carcin- omas Nephro- blastomas	3	3	6	3	5	0	0	0
Scattered Tumors (no pattern)	5	2	3	2	1	0	0	0
Survivors	0	0	0	1	1	8	12	0

The relatively low incidence of liver, kidney, and "other" tumors in the 10,000 ppm group is presumed to be due to the high early mortality from Zymbal gland tumors. The control group of animals exposed to 2,500 ppm vinyl acetate experienced no tumors, and all have died from other causes.

Another group of animals, started in January 1973, was exposed to the vapors for four months only; otherwise the conditions were comparable to those in the main

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experiment. This experiment was done to better simulate the fraction of a workers life in which industrial exposures are likely. At this time, one Zymbal gland tumor has been observed in the 10,000 ppm group.

Among other experiments now under way are groups of 120 rats per group, being exposed to concentrations of 200, 150, and 100 ppm in an effort to better define the no-response level. These were started in June 1973 and so far no tumors have been observed.

A group of 60 rats is being exposed to 30,000 ppm in an effort to duplicate Viola's work. No tumors have yet been seen. Exposures began in June. At the same time, Wistar strain rats, and somewhat later, Swiss mice and hamsters were started on a series of exposures ranging from 10,000 ppm and below. No tumors have been observed to date.

12. IBT Pathologist Visit to Dr. Maltoni's Laboratories

The European Group has indicated that late January or early February would be an acceptable time for an IBT project pathologist to visit Dr. Maltoni. It was the consensus of the Research Coordinators that Dr. Callandra would be the best man for such a visit. Dr. Torkelson was delegated the responsibility for making informal contacts with Dr. Callandra to see if he would be available for such a visit. The Secretary was asked to determine from MCA's counsel whether we were free to make a full disclosure to Dr. Callandra of the European data.

13. Studies for Possible Future Support

Among the proposals given serious discussion by the Research Coordinators, the following were identified as the most pressing:

- (1) VCM Metabolic Studies -- \$50,000
- (2) Teratogenic Studies -- \$20,000

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