P. PSAILA/SPL

Making the count: a US study is to explore the cancer rates of workers in semiconductor factories.

Microchip industry proposes broad survey of worker health

Geoff Brumfiel, Washington

Makers of microchips are planning a study of more than 200,000 people to determine whether workers in semiconductor plants have an increased risk of cancer.

The Semiconductor Industry Association, a trade group representing nearly 100 US-based companies, announced on 20 August that it was seeking proposals for the study, which will use the health records of workers in US microchip plants.

The study is planned partially in response to hundreds of recent lawsuits brought by former employees, who allege that work in semiconductor factories gave them cancer. According to John Greenagel, the association's director of communications, the goal is to conclusively determine whether factory workers are more likely to get cancer. "We want the facts," he says.

But some researchers question whether the study can be truly impartial in the hands of an industry trade group that is representing defendants in the ongoing lawsuits. "Anything published will be highly screened by the industry sponsors," claims Joseph LaDou, who specializes in occupational medicine at the University of California, San Francisco.

Materials that can cause cancer if ingested, such as arsenic and beryllium, have been used for decades in semiconductor manufacturing, but until now only a handful of studies have looked for increased cancer risks among employees. In 2001, a study by Britain's Health and Safety Executive of more than 4,000 workers at a National Semiconductor plant in Greenock, Scotland, found that female workers were two to three times more likely than other women in the area to have lung cancer.

A more recent study of deaths among roughly 30,000 former IBM employees in the United States showed an increased incidence of cancer. But that study was pulled from an Elsevier journal earlier this summer before it could be published (see *Nature* **429**, 687; 2004).

"We hope this new study will either give us something to work on or provide reassurances to people that the industry is safe," says Greenagel. He says that the research will be conducted independently. "They will have rights to publish their findings," he says of the researchers. But he adds that the scientists will not be able to identify specific companies in their research. "There will be confidentiality restrictions," he says.

For his part, LaDou remains doubtful and says he wishes the study was being conducted independently by a government agency. "If this had been placed in the hands of the National Institute for Occupational Safety and Health or the National Cancer Institute, we would all be relieved to see it move ahead," he says.

But other researchers are cautiously optimistic. "I think it's a positive step," says Richard Clapp, an environmental health expert at Boston University, who led the unpublished IBM study. "If you can get good, independent scientists, I think it's possible to get honest results." ■

Five-year grant gets bird database off to a flying start

Erika Check, Washington

Snakes, lizards and bears all have comprehensive specimen databases — and now one is being set up for the bird family.

On 1 August, the National Science Foundation gave a consortium of North American museums a five-year, $1.5-million grant to build ORNIS — the Ornithological Information System. ORNIS will be a database that contains information on around 4 million bird specimens from 30 collections. Its creators say they will improve on other databases by writing software to automate tasks such as synchronizing and checking data.

Species databases use a method called georeferencing to allow researchers to compare the geographical origins of specimens across collections. In databases such as MaNIS, which is for mammals, scientists must assign each specimen's map coordinates by hand. But ORNIS, which is not related to the European system of the same name, will assign and update geographical information for each specimen automatically.

"We are using the same concept as the other databases, but making it a lot more efficient," says A. Townsend Peterson, leader of the ORNIS project and curator of ornithology at the Natural History Museum and Biodiversity Research Center of the University of Kansas in Lawrence. "Georeferencing is an enormous task," he explains.

The ORNIS team will also write software to check for errors in the collections. For instance, one program will check for specimens that have been collected suspiciously far from other, similar ones, as such outliers might have been misidentified by their collectors.

Peterson says ORNIS will aid research in other fields by sharing its software. "Other networks can grab the tools we are going to develop and plug them right into their own systems," he says. ■

A. LEEK

Birds on the wire: an online resource will collate information on a range of species.