defence materials that attack specific targets. Dr. Chris Tan of the University of Calgary's department of medical biochemistry patented a method for the large-scale production of one type of the protein interferon in 1973. Then, after years of effort, he and his colleagues broke its genetic code, determining which genes produce it and which control its effects. They found it to be effective against viruses. Some researchers had hoped that interferon would prove to be a "magic bullet," a broad-scale remedy for cancer, but it has not. Researchers hope it may prove effective in treating specific cancers, but it will take years of clinical trials to determine that.

It has had promising results in the treatment of tumors caused by viruses and of viral diseases such as herpes and the common cold.

## **Beyond the Cat Scanner**

Dr. Donald Boisvert, associate surgical research professor at the University of Alberta, and his colleague, Dr. Peter Allen, a physicist formerly at the University of Nottingham, U.K., head a tenperson Nuclear Magnetic Resonance Research Unit at the University of Alberta.

NMR uses magnetic fields to produce pictures of the internal organs that are more detailed than those produced by the CAT (Computer Axial Tomography) scanner, which uses x-rays.

Here's how it works: Hydrogen is abundant in the human body in the form of water, H<sub>2</sub>O. Its nuclei are tiny magnets, which, placed in a



This NMR image clearly shows recurrence of a facial tumor following partial removal.