

Duke University Medical Center



Air Force grant UV light hazards studied



LOTS OF GLASS-Glass panels are going up on the circular core of Duke North, which will contain the elevators for the new hospitals. The glassed-in, covered walkway is shown in both photographs, located above the automated Personal Rapid Transit (PRT) guideways. Most of the talk and the photographs about transportation between the north and south divisions of the hospital have centered on the PRT system. But there's another way people will be getting back and forth — that old stand-by, "leg power." A pedestrian way is being built and will extend from the balcony of the Seeley G. Mudd Building over to Duke North, crossing above the PRT "tracks." In the photograph above, the forms for the walkway from Mudd to Duke North are in place, and concrete for the sides is expected to be poured any day. The section of the walkway visible in the bottom right corner of the photograph angles sharply to the left to connect with the balcony of the Mudd Building. (Photo by Parker Herring)

DURHAM, N.C.

The United States Air Force's School of erospace Medicine has awarded a \$74,000 grant to two scientists who are studying how ultraviolet light damages vision.

Drs. Herbert Hacker, chairman of the Department of Electrical Engineering, and Bill Yamanashi, assistant professor of ophthalmology, received the one-year grant to investigate molecular changes in the lens and cornea of the eye brought on by ultraviolet radiation.

In an interview, Yamanashi said the Air Force is supporting their research in an effort to learn more about how accidental exposure to UV lasers can harm evesight among its personnel and to protect pilots who may be exposed to laser weapons in war time.

Most people know that ultraviolet light from the sun can tan skin, the scientist said. Less well known, however, is that too much of the radiation can cause

cataracts and other eye diseases by creating what researchers call "free radicals.'

Yamanashi defined free radicals as chemical species - either molecules, parts of molecules or atoms - that contain unpaired electrons and are usually both short-lived and very reactive.

Prolonged or excessive exposure to certain wave lengths of ultraviolet radiation causes abnormal levels of them to form from natural eye proteins. Eskimos, professional fishermen and others who work in bright sunlight for many years are especially prone to the eye diseases that result.

"We're studying basic aspects of the problem — what kind and how many free radicals are produced by absorption of various wavelengths of UV," Yamanashi said. "We would like to find out exactly (Continued on page 2)



- Berta Bobath works with an infant during a recent symposium. She was demonstrating therapy techniques she and her husband, Dr. Karel Bobath, have developed for treating brain-injured patients. The Bobaths, considered pioneers in their field, conducted two seminars and an indepth course here this summer, sponsored by the Department of Physical Therapy. More than 200 health professionals from across the country attended the symposium, filling the Hospital Amphitheater to overflowing. (Photo by