

SOUTHWEST CENTER FOR ADVANCED STUDIES

POST OFFICE BOX 30365
DALLAS, TEXAS 75230

(214) ADAMS 1-1471

March 4, 1969
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Al Mitchell, Director of
Public Affairs - Ext. 215

**NATIONAL INSTITUTE OF GENERAL MEDICAL SCIENCES MAKES GRANT
TO RUPERT FOR FURTHER STUDY OF RADIATION DAMAGE REPAIR**

National Institute of General Medical Sciences has granted \$70,458 for further study of a "healing enzyme" that can repair ultraviolet radiation damage to genetic material.

The research will continue in its fourth year, effective March 1, under direction of Prof. Claud S. Rupert and in the Biology Division, Southwest Center for Advanced Studies.

The study is directed at understanding the mechanism of the photoenzymatic process for repair of cell DNA that has been injured by exposure to ultraviolet. The PR enzyme, a protein, present in many living cells, can be activated by a 1/1,000 second flash of high-intensity violet light/^{to} effect repairs at essentially all damage sites where it is present, and then free itself from the initial locations to find others during a "dark period."

Timed light flashes provide a way to follow the combination of the photoreactivating enzyme with genetic material at new sites.

Natural damage repair in cells is a fundamental life process. Failure to repair, or errors in repair of genetic material (nucleic acids) may be involved in the cause of some types of cancer.