

# news THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT DALLAS

southwestern medical school - graduate school of biomedical sciences - school of allied health sciences

Contact: Bob Fenley

JULY 10, 1974

## DOGS MAY HELP STUDY ORBITAL HEART CHANGES

DALLAS--Man's best friend may go into space again to sniff out a medical riddle.

The University of Texas Southwestern Medical School in Dallas has been awarded a \$13,415 contract by the National Aeronautics and Space Administration to determine if it's feasible to instrument the hearts of dogs so they can be studied in earth orbital space laboratories.

One of the objects, relates Dr. James Atkins of Southwestern, would be to measure the changes in the heart and blood system as a living body adapts to zero gravity.

Astronauts with the Skylab projects reported some degree of sickness during the first days of their voyages and it's suspected this might be linked to some sort of heart and blood vessel adaptation to weightlessness, said Dr. Atkins.

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first add dog in space

Dr. Stuart Bergman, research medical officer with the Lyndon B. Johnson Space Center in Houston, said a series of space laboratories will be assembled by shuttle rocket in 1979 or 1980 and that one of the laboratories will be concerned with the life sciences.

Preliminary plans are to use two heart-instrumented dogs in the life sciences lab, he said.

The initial contract calls for Dr. Atkins to implant sophisticated measuring instruments, or probes, in two dogs.

"These include sonar crystals to measure the diameter of the heart, high fidelity pressure sensors to measure ventricular pressure and flow probes," said Dr. Atkins.

A 7-day trial run with astronauts and dogs is planned for October at the Johnson Space Center, said Dr. Bergman, a cardiologist who is principal investigator for the project. The two dogs will be cared for by two life scientists among the several crewmen.

Southwestern Medical School's Weinberger Laboratories for Cardio-pulmonary Research have pioneered in studies of the physiology of the heart and blood system using an x-ray movie and computer arrangement. Scientists with the school previously have furnished an experiment which enabled study of human lung cells in zero gravity.

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