

## PUBLIC HEALTH

## V.A. Probe Urged

Thousands of veterans are receiving medical care to which they are not entitled, according to one investigator's findings. This should be investigated, he suggests.

MORE THAN half the patients in Veterans Administration hospitals are free-loading on American taxpayers.

Dr. Amos R. Koontz, a Baltimore surgeon, advised colleagues to support measures that would pressure Congress into an investigation of VA activities in the fields of medicine and surgery. His report appears in the *Current Medical Digest* (Dec.).

"It is manifestly unfair for veterans who are ill with non-service-connected disabilities to expect free medical care in Veterans Hospitals," he states. They are receiving such care at the expense of all taxpayers and many other veterans who are too proud to accept free benefits, he points out.

More than 113,000 patients are treated each day in Veterans Administration hospitals or in hospitals that are paid for such care, VA data show. Reports from the Government's fiscal year 1959 reveal that total patient cost was \$739,000,000.

Patients in VA hospitals suffering from disabilities not connected with their military service cost \$464,903,000, more than half of the total. Patients with service-connected disabilities cost less than half of that, \$201,000,000. The remaining \$71,000,000 was spent on care of patients

with ailments that resulted from service-connected disabilities.

Approximately 44% of all VA patients are being treated for illnesses that directly or indirectly resulted from their tour of duty. The remaining 56% of all patients are treated for disabilities not connected with the service. These include tuberculosis patients and elderly veterans suffering from chronic old age diseases, patients considered not financially able to afford a private hospital, and a few non-military personnel.

Dr. Koontz reminds colleagues that there is a good chance Congress will be especially economy-minded next session. He urged them to act now. He further asks them to prod the state medical societies to request that the American Medical Association ask for a Congressional hearing.

Science News Letter, January 2, 1960

## BIOLOGY

## Nucleic Acid Studies Shed Light on DNA and RNA

A UNIFIED theory of heredity and virus infection may be a step closer because of tests indicating that two essential life chemicals differ more than previously believed.

The two chemicals are the nucleic acids RNA (ribose nucleic acid), which controls cell protein production, and DNA (deoxyribose nucleic acid), the material the genes are made of.

Dr. Saul Kit, a biochemist at the University of Texas M.D. Anderson Hospital, Houston, Texas, has found evidence that tumor cell RNA is composed of single-stranded molecules, while DNA is two-stranded.

Dr. Kit's analyses of nucleic acids of normal and cancer cells from humans and animals tend to confirm the previously held belief that DNA is two-stranded. Heating and cooling DNA splits the hydrogen bonds that bind the two twined strands together.

However, evidence indicates that RNA is composed of only a single segmented strand, because heating does not split either the whole RNA molecule or its segments.

The scientist now believes that gene DNA serves as a frame on which RNA is manufactured. The RNA then migrates outside the nucleus, takes up residence in the cell's cytoplasm and there produces the enzymes and other proteins that govern the size, shape, chemical function and behavior of the cell.

RNA, he believes, may be the mechanism by which genes transmit the information that defines the inherited traits of the cell. The theory may help to explain how viruses composed of RNA and viruses composed of DNA could have similar effects on the cell.

Science News Letter, January 2, 1960

## PHYSICS

## Balloon Flights Will Carry Large Scientific Package

TWO GIANT balloons to be launched from an aircraft carrier in the Caribbean late in January will carry the largest scientific package yet sent to such a high altitude.

The balloons are expected to reach an altitude of 18 to 22 miles and to remain aloft for about 48 hours with their payload of some 2,500 pounds each. Sheets of pure emulsion somewhat similar to that used in photographic film will make up 800 pounds of the scientific package.

The emulsion blocks are especially designed to record primary cosmic rays or nuclear particles that achieve energies as high as 10,000 billion electron volts (Bev). The project is sponsored by the National Science Foundation and the Office of Naval Research. Fleet support will be provided by the Navy, which has named the launching operation Skyhook 60.

The balloons with the unprecedented volume of ten million cubic feet each will be sent up from the general vicinity of the West Indies. The overall scientific program is known as Project ICEF, for International Cooperative Emulsion Flights, because about 25 universities and other research institutions are participating. The scientific work is under the direction of Prof. Marcel Schein of the University of Chicago.

Science News Letter, January 2, 1960



**RADIO FREQUENCY EXPEDITION**—A team from the National Bureau of Standards' Central Radio Propagation Laboratory encounter bad weather on a glacier in northern Canada as they measure the complex conductivity of ice over the radio frequency range from 20 to 200 kilocycles. This expedition is illustrative of many that are made to remote places by CRPL personnel in the NBS program of radio propagation research.