

BIOCHEMISTRY

Proteins Make Vitamins

Experiments with rats revealed that proteins are increased when they are set free from vitamin-building. Discovery may aid in disease-fighting.

► **THE BODY** may be able to manufacture some vitamins from proteins if it does not get enough vitamins from food, the International Society of Hematology was told in Buffalo.

Discovery that some vitamins can be made from proteins was made in experiments with rats, but the findings may apply to humans, Dr. Floyd S. Daft of the National Institutes of Health, Bethesda, Md., declared.

Dr. Daft found that if there are not enough vitamins and amino acids, chemical building blocks of proteins, in the diet of rats, they develop blood disorders. The nutritional anemia may be caused by a shortage of protein material to manufacture the missing vitamins, Dr. Daft suggested.

Rat experiments indicated that a diet slightly deficient in tryptophane, an amino acid, produced a shortage of the vitamin, folic acid. When the rats were treated with either of two vitamins, niacin or folic acid, they recovered from the anemia.

When the vitamin was given the rats, Dr. Daft said, it seemed to increase the supply of protein, because the protein was no longer used in vitamin-building.

Rats put on a diet in which casein, the principal protein in milk, was the only protein, showed growth failure and frequently developed blood disorders. Adding three protein-building amino acids to the diet prevented this condition from developing.

But after the blood condition had developed, one or more other substances such as amino acids, folic acid or purified liver extract were generally needed.

Thus, Dr. Daft concluded, vitamins can help correct a protein deficiency, while proteins will aid in building up the supply of vitamins.

If a diet is low in protein, there will develop shortages of both vitamins and nucleic acids, the basic substance in the nucleus of a cell.

The findings with rats may apply to humans, Dr. Daft said, because both rats and humans respond to the same treatments with vitamins for certain types of anemia. Folic acid and the new vitamin, B-12, correct these anemias in both, it was found.

How sulfa drugs work in the body may be explained further by discovery of this interchange between vitamins and proteins, the scientist indicated. Dr. Daft previously found that sulfa drugs cause anemia and destruction of white blood cells in rats. His new experiments have led him to believe

that sulfa drugs may create an amino acid shortage in the body.

Science News Letter, September 4, 1948

New Hereditary Disease

► **A NEW** hereditary bleeding disease which strikes infants was reported to the society by two French doctors, Jean Bernard and J. P. Soulier, both of Paris.

Hemorrhages began in 15-day-old babies. In some cases two or three children in the same family were affected. Blood vessels under the skin and the membranes lining the body organs hemorrhaged, and one of the infant victims vomited blood.

Science News Letter, September 4, 1948

PSYCHOLOGY

Fourth of Veterans Found Mistaken in Job Choice

► **ONE** of every four veterans who came to a vocational guidance center was found to have mistaken ideas about what sort of job he should try to get, a survey has revealed.

Some of them aimed too high for their intelligence or abilities. Some had school

records which did not justify the choice they made. Others were handicapped by personality maladjustments, physical disabilities or lack of money to finance their training.

A study of the job choices of 224 veterans is described by Joseph Stubbins of Columbia University in the journal, OCCUPATIONS (April).

Six of every ten veterans made appropriate choices, while approximately one in every ten was unable to suggest a suitable job for himself.

Only 3.6% of the group aimed too low in their vocational choices.

The more educated veterans did a better job of selecting an occupation, it was discovered. Pensioned veterans made reliable choices. Those who came for guidance voluntarily needed more help, because they tended to make less realistic choices.

Science News Letter, September 4, 1948

ARCHAEOLOGY

Earliest American House May Have Been Found

► **AMERICA'S OLDEST HOUSE**, with a possible age ranging from 10,000 down to 3,000 years, may be represented by an enclosing rectangle of post-holes discovered near Little Lake in Inyo County, Calif., by an expedition from the Southwest Museum in Los Angeles. Actual find was made by a volunteer amateur archaeologist, B. E. McGown of San Diego.

There are 23 holes, averaging four inches in diameter, outlining what seems to have been a crude hut about eight by 12 feet in



AMERICA'S OLDEST HOUSE—These post-holes discovered near Little Lake in Inyo County, Calif., may date anywhere from 10,000 years to 3,000 years ago.