

MEDICINE—CHEMISTRY

# Anti-Gray Hair Vitamin Succeeds in Human Subjects

## "Cure" of 30 Patients With Para-Aminobenzoic Acid Announced in Report to American Chemical Society

"**A** MARKED darkening" of previously gray hair and growth of "new natural colored hairs" in 30 human beings has been achieved by small daily doses of one of the newest of the vitamin B group, para-aminobenzoic acid, Dr. Gustav J. Martin, of the Warner Institute for Therapeutic Research, and S. Ansbacher, of the research laboratory of the International Vitamin Corporation, New York City, announced at the meeting of the American Chemical Society at Atlantic City.

This is the first report before a scientific society of the "cure" of gray hair in humans by this vitamin, although there have been a number of reports of the darkening of gray hair in rats and mice with doses of both para-aminobenzoic acid and other B vitamins.

Gray and white headed men and women up to the age of 69 years are growing new, natural colored hair as a result of daily doses of the vitamin, given

under the direction of Dr. Benjamin F. Sieve, of Boston City Hospital.

The vitamin has now been given to 300 or more patients with definite successful results, which Dr. Sieve will report later.

No toxic effects of the vitamin have been found.

Like the other B vitamins, the para-aminobenzoic acid is found in yeast and liver. For the treatment of gray-haired humans the synthetic vitamin, which costs about ten cents a pound, was used. The daily dose is 100 milligrams (about two-hundredths of an ounce), but Dr. Martin warned that it should be taken only under a physician's direction because this chemical has other effects, some of which are only just being discovered. It counteracts the curative effect of the sulfa drugs, for example, and under certain conditions might raise the blood pressure.

More effective treatment for high

blood pressure may result from another discovery reported by the same group of investigators with the collaboration of C. T. Ichniowski and W. A. Wisansky, of the Warner Institute. They found that catechol, a chemical related to carbolic acid, greatly enhances the blood pressure-lowering effect of tyrosinase, the enzyme that causes mushrooms and potatoes to darken.

Tyrosinase, previously reported by another scientist as effective in reducing high blood pressures, has the disadvantages of being poisonous and extremely costly in the amounts needed to reduce blood pressure. When catechol is given, the dose of tyrosinase can be reduced to one-thirtieth or less of the amount previously needed to lower blood pressure.

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## True Fountain of Youth

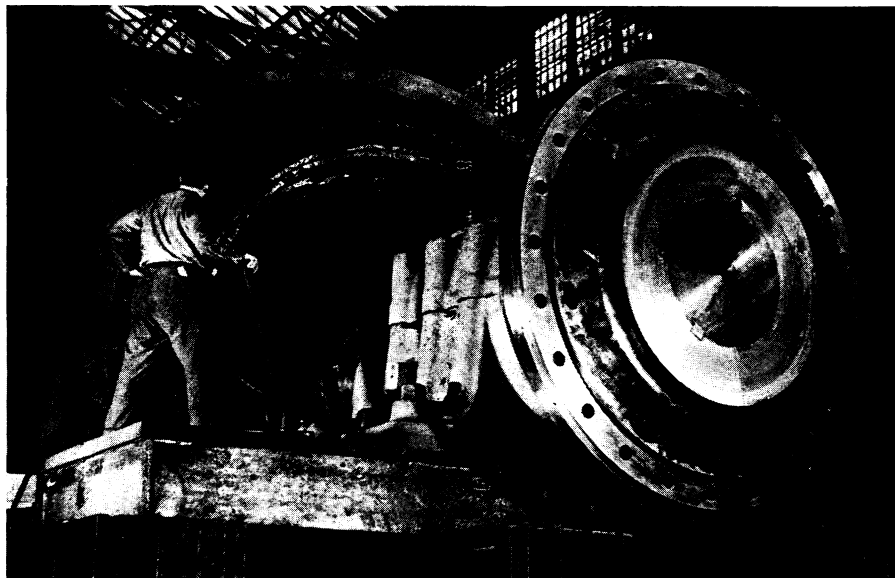
**T**HE FOUNTAIN of youth consists of fruits, vegetables and milk. This is the twentieth century scientists' answer to the quest of the Spanish explorer, Ponce de Leon in the sixteenth century.

For a long life and a healthy old age, you need to eat at least double the usual amount of these protective foods, it appears from studies of rat diets reported by Prof. Henry C. Sherman, of Columbia University, at the meeting of the American Chemical Society.

The ingredients in fruits, vegetables, milk and butter which contribute especially to a long healthy life are calcium and the vitamins A, C and riboflavin.

A diet enriched with two to four times the amount of calcium usually considered adequate for normal nutrition, Dr. Sherman said, accelerates the rate of development, maintains a higher level of adult vitality with an extended prime of life, and increases life expectation. The extra calcium does not result in hardening of the arteries, he declared, but does strengthen bone structure.

Old people as well as growing children need vitamin A, the latest studies show. This vitamin is found in butter and in yellow and green vegetables. Vitamin A used to be known as the growth vitamin because without it young animals do not grow normally. Adding vitamin A in the form of butter to a diet already considered adequate induced benefits which were particularly pronounced after middle age, Dr. Sherman reported. Female rats on this diet



FOR ALUMINUM

*This giant 5,000-horsepower electric motor, being tested at the East Pittsburgh works of Westinghouse, is produced for the defense program to help make aluminum for fighting airplanes at the 55-acre plant in Alcoa, Tenn., of the Aluminum Company of America. Note the size of the wrench.*

not only live longer but keep their appearance of prime physical condition and their ability to have offspring to higher ages.

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## "Shock" Stuff in Blisters

**A** SUBSTANCE having some of the same physiological effects as histamine was found in the fluid of blisters caused by accidental scaldings in human beings, by Dr. I. J. Greenblatt and A. Pecker of Bellevue Hospital, New York City. Histamine is a compound held responsible for shock, asthma and other disagreeable but baffling effects by some physicians.

When administered to rats, this blister fluid had the same effects on their digestive reactions as histamine. Histaminase, an enzyme that destroys histamine, prevented the reactions in the rats.

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## Pancreas Aids Vitamin

**V**ITAMIN A, made famous through its use to improve the vision of night-fighting pilots, is not absorbed into the bodies of persons with certain diseases or defects of the pancreas, gland under the stomach important in digestion. Experiments establishing this point and indicating ways of helping such patients were described by Dr. S. W. Clausen of the University of Rochester School of Medicine and Dentistry.

Dogs with their pancreases put out of action showed as poor vitamin A absorption as did parallel human cases. When various preparations of fresh pancreas, obtained from packing houses, were mixed with vitamin A, absorption was greatly improved. After "trying it on the dog," like treatment was used on human patients, with similar beneficial results.

The seriousness of these cases, and the importance of finding a successful treatment, is emphasized by the discovery that they are in danger not only from the lack of vitamin A, but also from a lack of the rickets-preventing vitamin D, the anti-sterility vitamin E, and the hemorrhage-stopping vitamin K.

Associated with Dr. Clausen in his researches were Dr. B. B. Breese, Jr., Dr. A. B. McCoord, Dr. E. B. Mahoney and Dr. C. P. Katsampes.

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## Meat Offsets Gas Poison

**A**MERICAN soldiers, with their high meat ration, are physically better equipped to meet certain types of war gas than is Vegetarian Hitler, it appears from a report submitted to the meeting of the American Chemical Society by Dr. Jakob A. Stekol and Dr. William J. Conway of Fordham University.

Meat and some other protein foods contain two compounds known as cystine and methionine. These compounds, fed to rats in the experiments of Drs. Stekol and Conway, were found to detoxify benzene derivatives, used as war gases in 1914-18, and also employed in many industrial operations. The same compounds prevented ill effects from pyridine, a poison present in tobacco smoke, and from naphthalene, another industrial compound most familiar to the public in the form of mothballs.

"Vegetarian Hitler would certainly prove to be no match for beef-eating Churchill if both were given the same dose of pyridine or benzene," the Fordham chemists declared. "If Bernard Shaw's vegetarian diet had occasionally been seasoned with a dash of pyridine, he would not have lived to be 85.

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## Sprays Disable Beetle

**P**OISON sprays that need only to touch Japanese beetles to disable them were described before the meeting of the American Chemical Society by Dr. W. H. Tisdale and Dr. A. L. Flenner of the du Pont pest control laboratory at Wilmington, Del. Contact with the beetles promptly paralyzes their mouthparts and forelegs. Naturally, a beetle

with paralyzed jaws can't be very active as a pest.

There are a number of compounds having this effect, Dr. Tisdale stated. All of them are derived from a complex organic chemical known as dithiocarbamic acid. Some of them have been found effective against other animal pests, among them the internal parasite causing the serious poultry disease, coccidiosis.

The compounds prove their versatility by being deadly also to fungi that cause plant disease. They even do their own sticking, eliminating the need for adhesives added to many other fungicidal sprays to make them cling.

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## Warning Against "Hate"

**W**ARNING against any repetition of the "hate" resolutions that marred the record of the American Chemical Society during World War I was sounded by Prof. Harrison Hale of the University of Arkansas. Prof. Hale called attention to the action of the Society in 1918, in withdrawing honorary membership from three noted German chemists, Nernst, Ostwald and Fischer.

"The inevitable effort to make amends for this inconsistent error of hasty action came in 1927, when Nernst and Ostwald were restored," Prof. Hale continued. "Fischer died in 1919 but not before he is said to have refused to consider restoration. This bit of history is given that as American chemists we may reaffirm our faith in the internationality of science and seek to protect this belief from any emotional attack that may come either from ourselves or from others."

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### PSYCHOLOGY

# Psychology's Many Schools All Logically Feasible

## Each Might Be Developed Without Conflict And All Programs Might Be Successfully Attained

**P**SYCHOLOGY'S various schools, about which scientists have argued so much, are all feasible, logically, and all might be developed without conflict, Dr. Clark L. Hull, of the Institute of Human Relations, Yale University, told the Sixth International Congress for the

Unity of Science, meeting at the University of Chicago.

This Congress was conducted by a group of thinkers informally known as the Vienna Circle, among whose doctrines is one strikingly similar to what is known in America as behaviorism.