

## ENDOCRINOLOGY

# Pituitary Growth Hormone

Pituitary gland produces a growth-promoting substance that, purified and crystallized, gave good results when tried on two young girls.

► **GOOD RESULTS** in treating two undersized young girls with pituitary gland growth hormone were reported by Drs. Ephraim Shorr, Anne C. Carter, Byrl J. Kennedy and Richmond W. Smith of Cornell University Medical College and the New York Hospital at the meeting of The Endocrine Society in New York.

One girl, 14 years, seven months when treatment was started, grew over seven inches, to reach a height of five feet seven-eighths inch, in four years. The other girl, who was almost 18 when treatment started, grew just over two and a half inches in three years.

The hormone used is a purified crystalline preparation called Somatotropin. It was prepared by Armour Laboratories according to a method developed by Dr. Alfred E. Wilhelm and associates at Yale University. It is in very short supply and none will be available commercially for many months.

Discovery that the little pituitary gland in the head produced a growth-promoting hormone was made over two decades ago, in 1921, by Prof. Herbert M. Evans and associates of the University of California. Much later, the California scientists succeeded in extracting the specific growth hormone from the gland.

Most of the tests of growth hormone, however, have been made on laboratory animals. The few studies of it so far when given to humans have been conflicting and inconclusive.

The studies reported at the meeting showed that besides promoting growth in the two very short young girls, the hormone promoted storage in the girls' bodies of protein and of bone-building calcium and phosphorus.

Somatotropin had in addition an anti-insulin effect. One girl had a temporary brief period of sugar in the urine like that seen in diabetes, and both girls had a reversible damage to the amount of sugar they could handle.

Dr. Shorr and associates gave the same hormone to three boys, but the boys failed to respond to the hormones as the girls had.

The danger of inducing diabetes through growth hormone treatment, however, might be overcome if cortisone and other adrenal gland cortical hormones are given at the same time. Experiments with animals suggesting this were reported to the meeting by Drs. R. C. deBodo and M. W. Sinkoff of New York University College of Medicine.

Growth hormone, these scientists find, acts "in concert" with the adrenal hormones in the glandular control of normal handling of sugars and starches in the body.

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## What Are Bugs?

► **GARDENERS, PICNICKERS** and outdoor folk generally must do battle with the bane of bugs—by which they mean not only all insects but such allied creeping things as spiders, centipedes, thousand-leggers, ticks and even scorpions.

Some entomologists groan and protest over this loose use of a name they have long since given to be the official monopoly of one special group of insects, but most of the "bug-chasing" brethren have learned to save their breath.

The bugs of the stricter entomological definition are insects of the family Hemiptera. This Greek-derived word means "half-winged," and is descriptive of the typical true bug, which has shorter fore- than hind-wings. Even more typical, however, is the method of feeding common to this family. The mouthparts have evolved into a piercing sucking beak, which is sunk into the juicy parts of the plant—or into other insects, for some of the half-winged brotherhood are fiercely predatory.

Familiar (too familiar!) examples are squash-bugs, stink-bugs, chinch-bugs, kissing-bugs (also called assassin-bugs—with better reason) and (whisper it!) bedbugs.

Professional entomologists, however,

should not be too high-nosed about insisting on reserving the name, bugs, for this one family. Originally, it didn't belong to insects and other creeping things at all. The first known form of the word was in Welsh, spelled (naturally!) "bwg," and meant a ghost or hobgoblin.

As "bugge," this hobgoblin-name was familiar in early modern times, and even got into one of the first English Bibles, the Coverdale version of 1535. The fifth verse of Psalm 91 reads, "Thou shalt not need to be afayed for eny bugges by night." In the King James version, "bugges" has become merely "the terror."

This early use of the word "bug" to designate any vague and imaginary terror survives now only in such relics as bug-bear, bugaboo and bogey. Popular entomology has captured it—only to have possession slangily contested, of late years by microbiologists, especially bacteriologists; also by mechanics who talk of "getting the bugs out" of a new machine that isn't working quite right.

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## AERONAUTICS

## Release Photo of Lark, World War II Missile

### See Front Cover

► **ALTHOUGH TAKEN** more than two years ago, the photograph on the cover of this week's SCIENCE NEWS LETTER is the first to be released showing the Lark, a guided anti-aircraft missile.

It is being launched from the test ship, *USS Norton Sound*. The cloud of smoke comes from booster rockets, needed to zoom the Lark to flight speed, then dropped when the thrust of its own rocket is sufficient.

The Lark, used for training by the Navy and other services, was developed during the latter part of World War II.

Science News Letter, June 20, 1953



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