



Southwest Foundation

NURSING MOTHER—Women and baboons have quite a bit in common—at least in their menstrual and pregnancy patterns. Birth defects caused by German measles and drugs such as thalidomide are being studied on baboons by Drs. F. H. Kriewaldt and Andrew G. Hendrickx of the Southwest Foundation for Research and Education in San Antonio, Texas.

MEDICINE

Germs Cause Burn Deaths

► **EVIDENCE** continues to mount for intestinal bacteria as causes of shock and death after severe burns.

Two common intestinal organisms seemed to cause and not merely to accompany death in studies on laboratory mice by Dr. Kehl Markley of the National Institutes of Health, Bethesda, Md.

Dr. Markley reported to a conference on early treatment of burns that an animal contaminated with any bacteria runs a higher risk of burn shock and mortality than an entirely germ-free animal. Mice contaminated with a particular organism called *Escherichia coli*—a normal inhabitant of man's intestinal tract—had a significantly higher death rate than those not exposed.

Burned mice, both conventional and germfree, were up to 1,000 times more sensitive to *E. coli* endotoxin—a by-product of the organism—than un-

burned mice. Dr. Markley found that building tolerance to the endotoxin with a non-lethal injection significantly decreased the mortality risk.

Mice injected with the endotoxin after a minimal burn, however, became more susceptible to challenge by another organism, *Pseudomonas aeruginosa*, considered the biggest culprit in post-burn infection.

Success with vaccine and plasma therapy to combat this organism was reported by Dr. Irving Feller of the University of Michigan Medical Center, Ann Arbor. The organism is very resistant to available antibiotics, and has been virtually impossible to combat.

The newly developed *Pseudomonas* vaccine and human hyperimmune plasma have been administered to all severely burned patients entering the Medical Center's Burn Unit during the last three years.

MEDICINE

Computer May Help Spot Thyroid Diseases

► **PHYSICIANS** may be able to diagnose thyroid diseases in a matter of minutes with a computer as an assistant. Such is the potential offered by an energetic program which began in 1959 to develop an alternate means of diagnosing thyroid disease while the radiologist is left free to do other work.

More than 1,300 cases of suspected thyroid disease have been fed into the computer for evaluation and diagnosis. The selection of data has been based upon published medical literature about thyroid diseases.

Signs, symptoms and laboratory values pertinent to the disease are digested by the computer to obtain the final diagnosis.

A logical diagnostic-decision-making process believed to imitate the thought processes of a physician experienced in thyroid disease forms the basis of the computer program developed by Dr. Clyde M. Williams and Lawrence T. Fitzgerald, of the department of radiology, University of Florida College of Medicine, and John E. Overall, Ph.D., of the Research Computation Center, University of Texas College of Medicine.

CHEMISTRY

England Investigates Pesticide Effects

► **A TWO-YEAR** investigation into the pesticide contamination of food has begun in Britain covering some 40 samples of foods in common use, in more than 200 areas.

Investigators will be looking for the presence of lead, arsenic and mercury residues, which would not be disclosed by biological tests.

Eggs will especially be examined for the presence of mercury.

Bread, meat, fish, milk, fruit and vegetables in seven zones will also be included in the sampling.

Neither the Association of Public Analysts, who first proposed the inquiry in June 1965, nor the 200 local food and drug authorities believe there is cause for alarm.

The aim is mainly to reassure the public about the food they buy.

If, however, high levels of pesticide residues are found in samples, the authority concerned will be empowered to take immediate action.

The results of all the samples taken, after examination by gas-liquid chromatography and biological tests, will go to the Association of Public Analysts for a national report.