

Life Sciences

PHARMACOLOGY

New Antibiotic Kills Staph

A recently discovered antibiotic called gentamicin is effective against numerous strains of staphylococci, including some strains resistant to its cousin antibiotics neomycin and kanamycin, according to the May 27 BRITISH MEDICAL JOURNAL.

Gentamicin is also highly effective against a strain of bacteria that causes urinary tract infection. However, in commonly used doses, its action lasts only two to three hours and further studies are needed to determine its therapeutic usefulness.

ENVIRONMENTAL PHYSIOLOGY

Temperature and Susceptibility

Temperature plays a significant role in susceptibility to certain poisonous bacteria—at least in experimental mice, scientists report.

Mice injected with endotoxin are much more likely to die if they have been kept in a stressful 91 degree F. temperature, than if they have been living in a 61 degree F. atmosphere, according to Drs. Howard S. Rubenstein and Jane Worcester of the Harvard School of Public Health, Boston. However, no explanation for this significant variation in resistance has been reported.

Endotoxins are poisonous antigens found in the cell wall of most Gram-negative bacteria, including *E. coli* and salmonella.

Gram-negative bacteria cause a number of common urinary and kidney infections. This same type of bacteria is known to be increasingly resistant to antibiotic drugs.

BIOCHEMISTRY

Enzyme Seen as Clue to Migraines

An inherited deficiency of an enzyme called monoamine oxidase may be the source of migraine headaches in some persons, according to Dr. Edda Hanington, who studied patients whose attacks were related to dietary factors.

Certain foods, including cheese and eggs, contain a substance known as tyramine, a product of one of the amino acids essential to most proteins. The presence of this substance in circulating blood appears to precipitate migraine attacks in sensitive persons.

In normal persons, tyramine is broken down in the intestine by the monoamine oxidase enzyme. The fact this enzyme is deficient in some migraine sufferers explains why tyramine is absorbed instead of broken down, says Dr. Hanington, who works at the Wellcome Trust, London.

It is still too early to be sure this enzyme defect is the basic disorder, but if it is, it may be possible to administer monoamine oxidase with food and protect these patients, Dr. Hanington reports in the May 27 BRITISH MEDICAL JOURNAL.

Social Sciences

BIOCHEMISTRY

Basic Intelligence Offset

By changing a rat's living conditions, it is possible to offset the effects of hereditary intelligence, reports psychologist David Krech, well-known for his work on brain development and enriched environments at the University of California, Berkeley.

Bright rats raised in an impoverished environment and dull rats raised in a rich environment do not show the usual differences in brain chemistry found between these two strains, says Dr. Krech. The animals had been specifically bred for intelligence and stupidity.

When the two strains are raised in the same environment, however, they show major differences in the chemical richness of their brains.

His work indicates that a good environment goes far toward compensating for intellectual shortcomings.

PSYCHOLOGY

Big Eye Pupils No Lure

A California psychologist has entered a note of caution regarding current speculation that men prefer women with enlarged eye pupils.

It was not true of 10 men tested at the University of Denver, reports Dr. Robert A. Hicks, assistant professor at San Jose State College.

They remained indifferent to pupil changes drawn on a series of photographs of the same woman. None noticed the pupil changes and their preferences were not altered by them. On the other hand, they did react to the woman's facial angle in the photographs.

The speculation that men prefer enlarged pupils was raised two years ago and has been taken seriously since.

"When you make a statement like that, it means you have controlled for other facial characteristics," comments Dr. Hicks. "We wanted to show we could produce the same effect with another characteristic."

One ambiguous effect in the Denver work reported in the April issue of PERCEPTUAL AND MOTOR SKILLS, was that 10 women viewing the same pictures definitely did not like enlarged pupils on the woman.

SPEECH DEFECTS

Stuttering Tied to Sexual Burdens

Stuttering apparently has much to do with culture and the burdens society places on one sex or the other, according to anthropologist Ronald Goldman of Vanderbilt University School of Medicine.

Men stutterers outnumber women by a ratio of four to one in the United States. Of the several explanations, one is that boys have to meet greater demands for fluency and performance than girls and therefore deal with greater frustrations.

If that is the case, Dr. Goldman reasoned, the unequal ratio should disappear in matriarchal societies. He found just that in a survey of the matriarchal Negro family.

There were almost as many Negro girls as boys who stuttered, reported Dr. Goldman in the coming issue of AMERICAN ANTHROPOLOGIST dated February. But in the patriarchal segments of the Negro population, male stutterers went up again, to 3.5 to 1.