

TERATOLOGY

Lead, marijuana, mercury

Three more causes of genetic defects have been reported:

- Mothers who drank moonshine whiskey contaminated by lead from the soldered parts of auto radiators used as stills have given birth to babies with spasticity and other neurological defects, the Environmental Health Service, Department of Health, Education and Welfare, reports. Most moonshiners use old radiators for stills, and one-third of the illegal whiskey confiscated by Treasury agents last year was lead-contaminated.

- One-fifth of the pregnant rats who breathed marijuana smoke equivalent to one cigarette a day for 10 days produced malformed offspring, according to Dr. Vincent DePaul Lynch of St. John's University in New York City.

- A significant correlation was found between the number of broken chromosomes in cells cultured after removal from persons who eat fish from Scandinavian waters and the levels of mercury found in their red blood cells. This is reported by Dr. Staffan Skerfving, Dr. Jan Lindsten and Kerstin Hansson of the Karolinska Institute in Stockholm. The inorganic mercury and other mercurial compounds found in industrialized wastes are metabolized into the most toxic form, methyl mercury, by microorganisms in sea and lake bottoms (SN: 10/10, p. 300). Sweden has banned the selling of any fish containing more than one part per million of mercury.

HEPATITIS

Transfusion damage suit won

A hospital patient who charged she had contracted hepatitis as a result of a blood transfusion—continually a potential problem with transfusions (SN: 8/8, p. 113)—has been awarded \$50,000 damages in a suit against a hospital. The Illinois Supreme Court ruled that blood is a product and that “the seller of a product intended for human consumption is liable for injurious consequences resulting from the consumption of a defective or adulterated product, even though it was at the time of the sale and consumption of such product . . . impossible to discover the defect.” The distributor is liable, the court held.

ONCOLOGY

More on herpes virus

Does a genital strain of herpes virus have a role in cancer of the cervix? Such a strain has recently been identified as different from the herpes simplex virus that causes mouth lesions. The finding that cervical carcinoma occurs more often in women who have had multiple sexual partners than in women with a single sexual mate has led workers to look for an agent for transmittal. Some workers have suggested that the venereally transmitted herpes virus may be such an agent (SN: 3/30/68, p. 305).

Now a piece of evidence pointing in this direction is reported. Johns Hopkins researchers say that patients with cervical cancers have more antibodies to this genital

herpes strain (HSV-2) than a matched control population. The study by Drs. Laure Aurelian, Ivor Royston and Hugh J. Davis is in the current *JOURNAL OF CANCER RESEARCH*.

FOLKLORE

Spanish fly can kill

Spanish fly is not an effective aphrodisiac, but it causes persistent abnormal penile erection as one of several symptoms of severe poisoning, warn Drs. Andrew Presto and Edward C. Muecke of the New York Hospital and Cornell University Medical Center, in the Oct. 19 issue of the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*. The physicians reported an increased number of patients who have taken Spanish fly, an extract of certain crushed beetles, at hippie gatherings.

OPHTHALMOLOGY

Sight for burned eyes

When an eye is burned by alkali, the cornea—the transparent membrane covering the pupil and lens of the eye—becomes opaque to light. Almost inevitably small holes, or ulcers, soon appear.

Drs. Stuart I. Brown and Carol Weller Hook say that the corneal tissue is shredded by an enzyme, collagenase. Collagenase destroys collagen, a protein that forms 60 percent of the cornea and also is present in joints and all body connective tissue. In a strange reflex of body biochemistry, collagenase is generated in the eye by the initial injury to the tissue—a kind of self-destruct enzyme—Dr. Brown says. It has not been possible to repair such eye damage.

The New York Hospital and Cornell University Medical Center researchers say that they have been able to forestall corneal ulcers by applying an amino acid, cysteine. Cysteine irreversibly blocks collagenase: its sulfhydryl bonds link to a metal ion on the enzyme.

The cysteine treatment by itself does not restore sight because the cornea has become opaque to light. But it has led to successful corneal transplant in three of four cases attempted. Corneal transplants usually melt under collagenase attack in the receiver's eye. Dr. Brown has prevented the destructive action of the enzyme by applying cysteine drops after he has put a transplanted cornea in place.

MICROBIOLOGY

Mycoplasma in rheumatoid arthritis

Mycoplasma, microbes that class somewhere between viruses and bacteria and now known to be the chief cause of pneumonia in young adults (SN: 10/17, p. 317), are also being identified in other diseases. A strain, *M. fermentans*, has been found in the synovial fluids of joints. Dr. M. H. Williams and colleagues suggest that the mycoplasma combine with host immunoglobulin to provoke an auto-antibody that causes joint inflammation. (*LANCET*, Aug. 8, 1970.) Drs. Ruth Kundsinn and Shirley Driscoll of Peter Bent Brigham Hospital in Boston report that mycoplasma in the genital tract may be a factor in spontaneous abortion or premature labor.