

Life Sciences Notes

GENETICS

Russian Geneticists Visit U.S.

For the first time since the 1930s, the Soviet Union has allowed Russian geneticists to make an official visit to the United States.

Four Russian scientists accepted an invitation from Dr. Ernest W. Caspari of the University of Rochester to attend the annual meeting of the Genetics Society of America taking place in Stanford, Calif., this week. Dr. Caspari is past president of the Society.

Official visits between Russian and American geneticists were forbidden during the 30 years Dr. Trofim D. Lysenko dominated Soviet genetics. A favorite during the Stalin era, Lysenko stated that a plant can be changed by its environment and is not necessarily subject to generally accepted laws of heredity. Although Lysenko's ideas were challenged as early as 1954, he remained a power until his final fall two years ago, Dr. Caspari says.

"This visit heralds the reestablishment of contact between American and Russian geneticists which was lost for 30 years. No branch of science can survive long without such contact," Dr. Caspari says.

MICROBIOLOGY

Technique Advances Cell Studies

Cancer researchers studying leukemia have found new techniques for examining stem cells which regulate the production of red and white blood cells. When viruses, including those that cause leukemia, invade these stem cells, a control mechanism is upset so that in a few days time only leukemic white cells are being manufactured.

In experiments with mice, Dr. Gastone Matioli and his colleagues at the University of Southern California at Los Angeles successfully transplanted stem cells from a normal to a diseased animal where they began producing red and white cells in proper balance.

However, few of the stem cells survived in the second animal very long. Dr. Matioli expects, though, that when further studies of stem cells reveal precise information on blood cell repopulation, totally successful transplants will be possible. He and his associates are able to partially isolate stem cells by a gradient technique in which centrifuged stem cells rise to the top of a test tube because they are lighter than any surrounding cells.

They also are in the final stages of perfecting an electrical separator that will further isolate stem cells for study. Their goal is to design a method of isolating and examining pure stem cells so the control mechanisms can be analyzed with great precision.

RESEARCH SPENDING

R&D Spending Up \$1 Billion

A rise of \$1 billion in nationwide research and development spending is expected in 1968, the National Science Foundation says. Basic research accounts for 36

percent of the total outlay of Federal and private money; 64 percent goes to development or applied science.

The growth rate of 6.9 percent for R&D spending in the period 1965-68 is below the average jump of 9.5 percent for the preceding seven years.

R&D spending in 1968 will hit \$25 billion, NSF says.

GENETICS

New Virus-Like Particle Found

A new virus-like particle has been found in the fruit fly species *Drosophila melanogaster*.

Dr. Hiromu Akai and his coworkers at Western Reserve University, Cleveland, employed electron microscopy to spot the virus-like particle in mutant larvae of the fruit fly species. They report in the Aug. 18 *SCIENCE* that the particles appear to infect only cells that divide. The particles were found in malignant brain tumor, gut cells and blood cells. The scientists also expect to find them in other dividing cells of the adult fruit fly, including those of the gonads.

If the viral nature of these particles is confirmed by studies of infectivity, their occurrence in *Drosophila* assumes some special interest, the researchers say. "Indeed, it introduces the prospect of using genetics as a tool to uncover control of viral development in a multicellular organism."

The Cleveland researchers report that Dr. R. P. Kernaghan of the State University of New York at Stony Brook has also discovered virus-like particles in the nucleus of certain *Drosophila* cells. His data is as yet unpublished.

VIROLOGY

Vitamin C Has No Effect on Colds

There is no foundation to support the commonly held idea that vitamin C, ascorbic acid, is good either for preventing or curing colds, British scientists have found.

"Many trials claiming a beneficial effect of ascorbic acid in colds have been completely uncontrolled studies," according to the editors of *NUTRITION REVIEWS* (August), who base their position on a study of available literature dating from 1947 to the present.

NUTRITION REVIEWS is a monthly journal edited by Dr. Fredrick J. Stare of Harvard University.

Results of carefully controlled studies by Drs. G. H. Walker, M. L. Byroe and D. A. J. Tyrell in the *BRITISH MEDICAL JOURNAL* indicate that Vitamin C in no way acts against cold-causing viruses, the editors say. These same studies, they point out, show the powerful placebo effect vitamin C has on some individuals.

In two trials involving 91 human volunteers, colds treated by vitamin C lasted less time than untreated ones when the volunteers were told whether they were getting the vitamin or not. In a third trial in which no information was given, colds lasted the same length of time in both treated and untreated subjects.

The Food and Drug Administration prohibits drug makers from advertising vitamin C as a specific cold remedy.