News of Science

German Atomic Energy Center

A documentation center for literature on atomic energy and radioactive isotopes has been opened in the House of Technology in Essen, Germany. About 70 scientists have volunteered to assist in collecting, sorting, and evaluating specialized material for the center. Pertinent foreign publications are to be translated into German, completely or in part.

Later, courses are to be held for training employees of industry in nuclear physics. Such courses are to include an introduction to the construction and operation of the approximately 20 types of atomic reactors now in existence; instruction on the production of isotopes; ways of destroying or using radioactive fission products; and information on German liability laws in the sphere of atomic energy.

In his speech at the inauguration of the Essen center, Undersecretary Professor Brandt of Düsseldorf suggested that chairs for nuclear research be established at German universities, for which, he said, a federal subsidy of about DM. 60 to 80 million would be needed. Brandt pointed out that the future role of German industry in the world market will largely depend on the progress of nuclear research in the Federal Republic.

Zoonoses

At least 89 infections of domestic and wild vertebrates represent threats to human health, according to a recent article by Meyer in the *Bulletin for Medical Research* [**10**, No. 1, 2 (Sept.–Oct. 1955)]. These zoonoses may invade the human body by way of the mouth, skin, mucous membranes, and respiratory tract. Transmission results most frequently from direct contact with diseased animals or contaminated animal products, but it may also occur through an intermediate vector.

The real problem of suppressing or eradicating these diseases lies in the discovery of their true reservoirs as well as in dealing with ineradicable mammalian or bird reservoirs. Some of the zoonoses represent major epidemiologic problems.

1) Bovine tuberculosis, which can produce both pulmonary and extrapulmonary tuberculosis in man, seems to be spreading to rural populations in Great Britain and Denmark.

2) The economically underdeveloped countries of Latin America and the Mediterranean area are the chief victims of brucellosis, which is acquired by man from cattle, goats, and sheep and causes extensive illness, misery, and economic loss.

3) Anthrax is an important disease in the eastern Mediterranean area and parts of Asia, Africa, and Latin America. It is acquired by man not only by contact with living or freshly killed animals, but also from their salvaged hides, hair, or wool.

4) No part of the world is free of rabies. Although the dog is the most important source of human infection, rabies in wild animals such as the fox, jackal, and wolf has reached epizootic proportions in both Europe and North America in recent years. The discovery in Mexico and South America that vampire bats act as symptomless transmitters has raised peculiar problems for rabies control in such areas.

5) Transmission of salmonellosis to man directly from animals and indirectly through food products presents a growing world-wide problem. Domestic fowls are large reservoirs, and cattle, dogs and cats can be symptomless excreters.

6) Until recently—with a few exceptions in Japan, Australia, Germany, and Italy—human leptospirosis has not been of great public health importance. Of late, however, it has been shown that this disease occurs more widely in domestic animals than had been believed formerly.

7) Q fever, which is chiefly acquired by man from goats, sheep, and cattle, is widespread; highly infected areas occur in many parts of Europe and in Turkey.

8) The chief reservoir of psittacosis in the United States is the parakeet, which causes about 40 to 50 clinical cases a year. Prevention of psittacosis is difficult because the disease is usually recognized only when it has reached epidemic proportions and also because quarantine regulations of imported psittacine birds are violated and reinfection is introduced by irresponsible trading and bartering. A similar viral agent, that of ornithosis, has been found in pigeons, ducks, turkeys and chickens.

Although the fact is often not appreciated, parasitic infections of other animals are quite as important as sources of human disease as those produced by bacteria and viruses. By way of illustration, three such parasitic diseases may be noted.

1) Hydatidosis, which is shared by man with sheep, cattle, and pigs, has an extensive geographical distribution but is prevalent only in countries where man, dog, and sheep—more rarely, cattle and pigs—are closely associated.

2) *Taenia saginata* occurs as an adult tapeworm only in human intestines; the larval stage develops in cattle tissues, causing "measly beef" more often than is usually realized. All populations eating raw or partly cooked beef are infected. The real problem of taeniasis is to keep cattle from contact with human feces.

3) Schistosomiasis can apparently be acquired by man from a variety of animals, but available data do not permit an evaluation of their relative importance. This disease is most prevalent in China, Formosa, the Philippines, the Celebes, and Japan.

Finally, it is pointed out that the cost of diseases of livestock and poultry in the United States alone in a single year was at least $1,316,620,000. The reduction of this great loss, with accompanying gain in health and food, should offer an attractive goal for a variety of interested groups.—W. L. S. Jr.

Research Associateship Program

Discussions by the personnel officer of the Naval Research Laboratory and his staff with representatives of the National Research Council and the Civil Service Commission have resulted in the establishment of a research associateship plan. Under the plan NRL prepares a series of specific research problems requiring research ability of a postdoctoral nature and falling within basic scientific and related areas in which the laboratory has need of assistance.

The National Research Council (i) prepares an announcement of these opportunities and distributes it to deans of colleges and universities; (ii) receives applications for the research opportunities and, after screening, establishes a list of eligible applicants in an order of competency for the individual research problem; (iii) provides supporting files for each eligible and a statistical summary of the distribution of applicants by scientific disciplines. NRL selects eligibles, in order of rank as determined by the NRC, to carry out the individual research problems, provided that the person also meets minimum Civil Serv-