RECENT DEATHS

Georgi N. Babakin, 56; space scientist and corresponding member, Soviet Academy of Sciences; 3 August.

Robert A. Brown, Jr., 39; chairman, internal medicine department, Meharry Medical College; 29 June.

J. LeRoy Conel, 88; professor emeritus of anatomy, Boston University; 13 July.

John O. Cook, 55; professor of psychology, North Carolina State University; 14 June.

Kenneth O. Donaldson, 48; professor of biochemistry, Howard University Medical College; 16 July.

Warren E. Engelhard, 48; professor of microbiology, University of Nebraska; 25 July.

Clarence H. Graham, 70; professor of psychology, Columbia University; 25 July.

Earl J. Halligan, 78; former medical director, Jersey City Medical Center; 3 August.

Raymond H. Hartigan, 55; chemist and vice president, Kraftco Corporation and former president, Rensselaer Research Corporation; 28 July.

William B. Hilbun, 40; chairman, child psychiatry department, University of Georgia Medical School; 1 May.

Edgar O. Holden, 77; dean emeritus, Philadelphia College of Osteopathic Medicine; 1 July.

Samuel Z. Levine, 75; professor emeritus of pediatrics, Cornell Medical College; 14 July.

Jacobus M. Lodewijks, 60; professor of biology, University of Leiden, Netherlands; 21 June.

Charles J. Lyon, 74; professor emeritus of botany, Dartmouth College; 6 August.

Elio D. Monachesi, 65; professor of sociology, University of Minnesota; 28 June.

William T. Nelson, 56; professor of sociology, University of Maryland, Eastern Shore; 21 June.

Leslie F. Nims, 65; former head, biology department, Brookhaven National Laboratory; 4 June.

Charles A. Reynolds, 48; professor of physics, University of Connecticut; 22 July.

Frank Rosenblatt, 43; associate professor of neurobiology and behavior, Cornell University; 11 July.

Wilford L. Shoemaker, 53; professor of educational psychology, University of Illinois; 16 July.

Wilson G. Smillie, 84; retired chairman, public health and preventive medicine department, Cornell Medical College; 5 August.

Frederick F. Stephan, 68; professor emeritus of social statistics, Princeton University; 2 August.

Charles W. Stoddart, 93; dean emeritus, College of the Liberal Arts, Pennsylvania State University; 2 August.

Chester B. Watts, 81; retired principal astronomer, U.S. Naval Observatory; 17 July.

Virgil C. Williams, 59; former head, chemical engineering department, Northwestern University; 13 July.

Edgar Zwilling, 58; Goodman professor of biology, Brandeis University; 23 July.

Erratum: In the report "Attention-related increases in cortical responsivity dissociated from the contingent negative variation" by M. W. Donald, Jr., and W. R. Goff [**172**, 1163 (1971)] line 12 of reference 20 should read "P300 and CNV with performance efficiency."

RESEARCH TOPICS

Rubella: Will Vaccination Prevent Birth Defects?

Although rubella (German measles) causes only mild or inapparent disease in children and adults, infection of the fetus with rubella virus may result in congenital malformations. Therefore, the goal of preventing rubella in pregnant women has spurred efforts directed toward making a vaccine. Several vaccines are now available and successful preventive measures may be at hand. But it is not certain whether the vaccines can safely achieve the goal of protection of pregnant women.

U.S. Public Health Service (PHS) recommends that all young children be vaccinated and suggests that vaccination of susceptible, nonpregnant women be considered on an individual basis. For the latter, the PHS believes that a woman should be vaccinated only when a physician can determine, by serologic tests, her immunologic status. Then, if he does vaccinate or recommend vaccination, he can caution her against becoming pregnant for 2 or 3 months after vaccination. It is known that the vaccine virus can infect the placenta and probably the fetus, but it is not known whether such infection would result in fetal malformations. Because of the uncertainty concerning the risks involved, the vaccine has not been given to pregnant women.

Some scientists, however, disagree with the recommendations of the PHS. This dissenting group advocates that susceptible women and adolescent girls be the primary candidates for vaccination against rubella. They argue that, because trials have indicated that the vaccine does not give as complete immunity as does the disease itself, vaccination of small children may lead to a future population of young women who would be more susceptible than if there had been no vaccine. It is estimated that, in the United States, 80 to 85 percent of adults are naturally immune to rubella as a result of their having had the disease. It is doubtful that vaccination could achieve this level of protection in the population. Proponents of vaccination of children argue that immunization of this segment of the population will eliminate the main reservoir of rubella virus, and therefore eradicate the disease. Poliomyelitis, for example, has been essentially wiped out by this method. Vaccination of children is favored also by the fact that children are easily reached by vaccination programs in schools or clinics; it is far more difficult to identify and vaccinate susceptible women who are of child-bearing age.

The Vaccine and Immunity

The ability of many bacteria and viruses, including rubella, to cause disease is often decreased when these organisms grow under laboratory conditions rather than in the natural host.