It thus appears that the nucleic acid of T2r+ is an example of an unusual desoxyribonucleic acid with glucose side chains.

It may be noted that the nucleotides H1 and H2 differ notably in both the sensitivity and nature of their response to irradiation with ultraviolet (2537 A) irradiation.

References and Notes

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Lewis J. Stadler, Geneticist

IN the death of Lewis J. Stadler on 12 May 1954 the science of genetics lost one of its most gifted and talented votaries. For more than 30 years Stadler conducted genetic experiments notable for their significance and clarity of conception, yet his influence on the course of genetical theory cannot be properly assayed from the published record alone. His penetrating and logical mind and his unexcelled ability to grasp the essential and discard the trivial made him a masterful critic and analyst. His friendly counsel and advice were constantly sought, for the extraordinary quality of his intellect was widely recognized. It is truly lamentable that death should come at the relatively early age of 57 when he was at the height of his intellectual powers and at a time when he was engrossed in fruitful studies.

Stadler attended the University of Missouri for 2 years before transferring to the University of Florida, where he obtained the degree of B.S. Agric. in 1917. Returning to Missouri for graduate work, he was awarded his A.M. in 1918 and then spent the following year at Cornell before coming back to Missouri to finish his graduate studies in 1922. Stadler was an assistant and instructor in the Department of Field Crops during the period of his graduate work, and after obtaining his Ph.D. he was made an assistant professor.

Except for a year spent at Harvard and Cornell (1925–26) as a National Research Council fellow and for sojourns as visiting professor at the California Institute of Technology in 1940 and at Yale in 1950, Stadler remained at Missouri until his death. From 1930 to 1954 he was jointly employed by the University of Missouri and the U.S. Department of Agriculture. Under Stadler's leadership the genetics laboratory at Missouri became a world-renowned center that attracted fellows from many lands.

Beginning with 1921 his maiden publications dealt with field plot technique and related agronomic problems, and it was not until 1925 that his first genetical paper, a study of variation in linkage values in maize, appeared. A more extensive analysis of the same phenomenon was published in 1926. Even today these papers constitute the most critical and intensive study of variation in recombination values in maize and are noteworthy contributions to genetic knowledge. However, it was at the 1927 meeting of the AAAS at Nashville that Stadler attracted wide attention by his confirmation of Muller's (1927) prior announcement of the mutagenic effect of x-rays. As is so often true, the same type of experimentation is conducted coincidently and wholly independently in more than one laboratory; this was true for the genetic effects induced by x-rays. It in no way detracts from the significance of Muller's work to say that Stadler was also a pioneer investigator of the genetic effects of short-wave irradiation.

From 1926 on Stadler was primarily concerned with studies of gene mutation, and it is with this area of genetic research that his name is commonly associated. The critical nature of Stadler's mind is best revealed by his approach to the nature of induced mutation. Immediately following the disclosure that x-rays produced gene mutations it was widely held that induced mutations were similar to those occurring spontaneously and that at last the geneticist had a powerful technique that would eventually lead to a solution of the nature of the gene. Stadler was one of the few, and the foremost among these, who felt that a comparative study of spontaneous and induced mutations was essential in order to evaluate the usefulness of this new tool in the determination of gene structure. He therefore began a long and extensive series of experiments in which he compared spontaneous and induced mutation at selected loci in maize. These brilliantly planned and executed investigations led him to conclude that in maize, at least, all x-ray induced mutations were extragenic in origin and that x-rays did not produce the kind of germinal changes arising spontaneously. Some geneticists are loath to believe that Stadler's conclusions apply to all forms of organic life, but no one can question the ineluctable force of his closely reasoned arguments. In Stadler's studies on the mutational process, we have an example of scientific experimentation at its best. They are superb in their clarity of conception and design, in

their singularness of purpose, and in their dispassioned and logical analysis. Younger geneticists could study them with profit.

Stadler was not a prolific writer; his publications number only 64. He published only when he felt he had something important to say and was not interested in accumulating a long bibliography. Perhaps his standards were too high in this respect, because it is regrettably true that a great deal of significant work remains unpublished. It is a fortunate circumstance that he often included conclusions from unpublished studies in his numerous symposium papers, and for this reason these publications are among his most valuable contributions. It is here that the extent and comprehensiveness of Stadler's mutation studies are most evident, and much of his influence on genetic thought stems from his participation in symposiums. A lucid and persuasive speaker, he was in demand as a lecturer and spoke before many scientific groups.

Although unquestionably an outstanding authority in his field, Stadler was not one of those specialists with little or no appreciation of other intellectual pursuits. On the contrary, he was a man of culture and wide interests, one whose conversations revealed a broad and tolerant mind. He accepted the critical and unyielding nature of his illness courageously and philosophically. I had the good fortune to visit briefly with him just as he was leaving for the hospital to undergo the operation from which he never recovered consciousness. Never once did he touch on his physical condition, of which he was well aware, but with his usual contagious enthusiasm outlined proposed experiments for the attack on the nature of the gene. With a calm fortitude he was prepared to face the inevitable.

Needless to say, many honors came to Stadler. He was a member of the National Academy of Sciences, the American Philosophical Society, the American Academy of Arts and Sciences, as well as a host of others. Among the elective offices he held were president of the Genetics Society of America and national president of the Society of Sigma Xi. But more important than these kudos is the respect and admiration held for him by his fellow-scientists. A great and wise colleague has gone; science has lost a truly eminent man who spoke in a clear and authoritative voice.

M. M. RHOADES

Department of Botany,
University of Illinois, Urbana

News and Notes

Friends of Pleistocene Geology—17th Reunion

The 17th reunion of the Friends of Pleistocene Geology was held in Wellsboro, Pa., on 22–23 May. About 100 persons attended, coming from Ontario, Maine, Michigan, Maryland, and intermediate points. In addition to Pleistocene geologists, the group included soil scientists, foresters, botanists, and archeologists. A field excursion in connection with the reunion was conducted jointly by W. H. Lyford, soil scientist with the Soil Conservation Service, U.S. Department of Agriculture, and the writer. We are carrying on a collaborative field study of the soils and the Wisconsin and pre-Wisconsin drifts in an area that extends roughly north from the latitude of Williamsport, Pa., to that of Ithaca, N.Y., and west from the longitude of Binghamton, N.Y., to that of Wellsboro.

The field excursion was devoted to three major problems. The first was a study of the lithology, stratigraphy, and topographic expression of early Wisconsin drifts, the "Olean" and "Binghamton" drifts of local usage [P. MacClintock and E. T. Apfel, *Bull. Geol. Soc. Amer.* 55, 1143 (1944)]. The second objective was an examination of the soils developed on these deposits. And finally, the excursion attempted to demonstrate that the "Olean" and "Binghamton" drifts have been modified by periglacial processes, chiefly mass movements, and that such modification took place in large part prior to the retreat of a "post-Binghamton" ice sheet, the "Valley Heads" of local usage [H. L. Fairchild, *Bull. Geol. Soc. Amer.* 43, 627 (1932)]. A tentative correlation of these drifts with the drifts of central United States is as follows:

Local name	*Possible correlative in central United States*
"Valley Heads" drift	Cary substage
"Binghamton" drift	Tazewell substage
"Olean" drift	Iowan and/or Tazewell substages

C. S. DENNY

U.S. Geological Survey, Washington 25, D.C.

U.S. Geological Survey's Paleontology and Stratigraphy Branch

The current program of the U.S. Geological Survey's Paleontology and Stratigraphy Branch was reviewed by its scientific staff during 3 days of meetings at the U.S. National Museum in Washington, D.C., 19–21 Apr. The purpose of these meetings was to outline and appraise the program in terms of individual project objectives, research methods, and progress. More than 40 speakers from the branch's three laboratory centers described their work in the course of five sessions. Nine visiting observers attended the meetings and led the discussion in a sixth and final appraisal session. Colleagues from the Washington area responded to a general invitation to attend. Many unscheduled conferences grew out of the scheduled but informal meetings.

The first session reviewed progress with paleotec-