

now under consideration for the polypeptide chains of collagen and gelatin, the analytic treatment is so complex that it resists successful execution, and only the model method can be used. In order that the principles of modern structural chemistry may be applied with the power that their reliability justifies, molecular models must be constructed with great accuracy. For example, molecular models on the scale 2.5 centimeters = 1 angstrom have to be made with a precision better than 0.01 centimeter.

We may, I believe, anticipate that the chemist of the future who is interested in the structure of proteins, nucleic acids, polysaccharides, and other complex sub-

stances with high molecular weight will come to rely on a new structural chemistry, involving precise geometrical relationships among the atoms in the molecules and the rigorous application of the new structural principles, and that great progress will be made, through this technique, in the attack, by chemical methods, on the problems of biology and medicine.

References and Notes

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News of Science

New Oral Insulinlike Agent

Preliminary observations with a sulfonamide derivative, which was originally synthesized in Germany, indicated it to be orally effective in controlling the hyperglycemia and glycosuria of patients with the adult form of *diabetes mellitus*. Less consistent beneficial effects have been produced in juvenile diabetics from observations to date. Nondiabetic human subjects may experience symptoms of hypoglycemia in association with the fall of blood-sugar levels. This compound is a bacteriostatically inert aryl sulfonylurea, being developed in the United States by the Upjohn Company, Kalamazoo, Mich., under the trade name of Orinase. It has been found to be similarly active in the intact animal but is without effect in depancreatized or alloxan-diabetic animals.

The mechanism of hypoglycemic action of Orinase remains to be clarified. Some observers favor the concept of insulinase inhibitions; others suggest a suppression of glucagon elaboration to account for its "antidiabetic" action. No disturbance of hepatic or renal functions or evidence of direct sensitivity from Orinase have been reported to date. The use of this compound is at present restricted to investigation of its scope and limitations.—E.M.L.

National Institute of Allergy and Infectious Diseases

An expanded program of research in allergy and infectious diseases has been announced by Leonard A. Scheele, Surgeon General of the U.S. Public Health Service. The program will be administered by the National Microbiological Institute, which is being redesignated the National Institute of Allergy and Infectious Diseases. The renaming of the institute reflects the importance of the new research program on allergies and the close relationship of such research with the study of infectious diseases.

The institute will also support long-term basic studies through grants to research scientists in the universities and medical schools. An increase of \$3.3 million will be sought for this program for fiscal year 1957.

A separate national advisory council on allergy and infectious diseases is being established to make recommendations regarding the new grant and training activities. Heretofore, the National Advisory Health Council has advised on grants for infectious disease research as well as on grants for research in other medical and public health fields that are not covered by a specific research institute.

Assistant Director for STIP

Irvin E. Wallen, associate professor of zoology and chairman of biological science courses at Oklahoma Agricultural and Mechanical College, has been granted a year's leave to serve as assistant director of the AAAS Science Teaching Improvement Program (STIP). He assumed his post in Washington on 25 Jan.

Wallen holds a B.A. and an M.A. degree from Oklahoma A. and M. and a Ph.D. from the University of Michigan. He was a teaching fellow at Michigan before he started his full-time teaching career in 1948 as instructor at Oklahoma A. and M. His research has included water pollution studies, and recently he helped the petroleum refiners in Oklahoma to organize a waste-control council.

Wallen's activities at Oklahoma A. and M. especially qualify him for service on the STIP program. He has served on a number of university committees, particularly those concerned with teacher education and the relationship of the college to secondary schools. In addition, during the past year he has been chairman of the science education section of the Oklahoma Academy of Science. One of his responsibilities in STIP will be to work with state academies.

U.S. Geological Survey

In its annual report the U.S. Geological Survey states that the previous achievement records in mapping were exceeded in 1955 by the publication of some 2669 new and reprinted topographic maps. This represents an increase of more than 25 percent over the high record established the previous year. The year's production brought to about 17,000 the number of different maps now