

CHEMISTRY

Chemists Seek To Synthesize Bone Marrow Substance

Isolation of "Mother" of White Blood Cells That Fight Disease Is First Step Toward Synthesis

CHEMISTS of Oberlin College are on the trail of the bone marrow substance which is the "mother" of the body's white blood cells that fight disease.

Prof. Harry N. Holmes, with Ruth E. Corbet and W. B. Geiger, told the American Association for the Advancement of Science at Columbus of their success in concentrating crystalline substances from the bone marrow of cows after the high fatty fraction (85%) has been extracted by saponification.

Among these nearly pure crystalline substances, it is believed, is the mother substance which creates the white blood cells, the granulocytes.

"It is important to medicine," said the scientists' report, "that this mother substance be isolated in pure form so that formulas and structures can be determined as a step on the way to the synthesis of this material. It is already known that the white cells are closely related to the non-saponifiable fraction of marrow."

The current report describes the microanalysis and the chemical properties of the crystalline bone marrow products. Biochemical testing with animals is now in progress.

Science News Letter, January 6, 1940

Fats from Paraffin

ALSO at the scientific sessions was the report of Dr. Willy Lange of the University of Cincinnati on the methods of producing fatty acids—from which can be made edible fats and soaps—from paraffin wax, a petroleum product.

Large-scale production of what corresponds to a synthetic lard is now in operation in Germany, Dr. Lange reported.

Science News Letter, January 6, 1940

Universities Get Patents

PROTECTION of the public and the proper commercial development of inventions constitute the only interest of leading American universities in patent-

ing discoveries made by scientists in their laboratories, Prof. A. A. Potter, dean of engineering, Purdue University, told the Association.

Dean Potter said it has become increasingly apparent that the altruistic method of dedicating patents to the "free use of the public" is one of the surest ways of assuring that the patent and invention will not be developed.

Sixteen of the nation's leading schools, which have created a patent policy to control the inventions which their staff members may make, cooperated with Dean Potter in his survey of applied research in academic institutions. These universities and schools own 380 patents and 114 of them are in active use, he disclosed. Only five universities report income from patents.

The aim of universities is to create an unexploitative commercialization of a patent which has value to the public.

"The fact that the income accruing to educational institutions from patents is insignificant," said Dean Potter, "indicates that the incentive for discovery and invention in colleges and universities is not financial reward but is involved in the fair and equitable recognition of creative genius and of aid given by industry to research."

Science News Letter, January 6, 1940

SOCIOLOGY

Cultural New Deal Urged to Bring Order

A NEW way of looking at the universe and man's place in it was urged upon the scientific world by Lawrence K. Frank, of the Josiah Macy Jr. Foundation, New York, before the American Association for the Advancement of Science. Such a cultural new deal is needed to bring order into our society and personal lives. Until we have such new formulation of our motivating ideas, we must continue to live anxiously and contingently, he contended.

Mr. Frank, considering the essential concepts and beliefs that make up what

we call "culture," finds that recent scientific knowledge has not been utilized adequately in shaping our motivating ideas suitable for living in a dynamic, changing world.

Four great problems that men at all times have had to face need new interpretation, in his opinion. These are:

1. How the universe arose or was created, how it operates, who or what makes things happen and why.

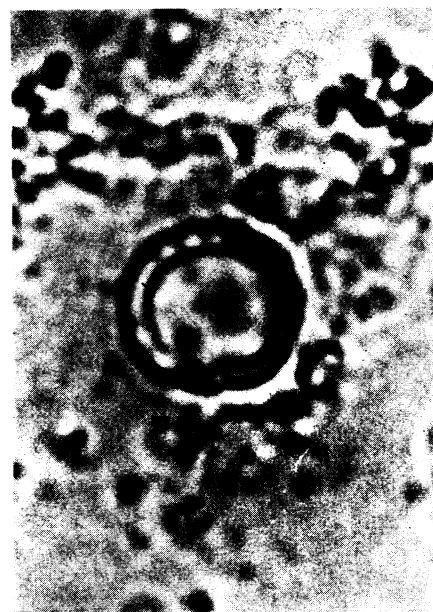
2. Man's origin, nature and destiny, his relation to the world, and whether he is a part of nature or outside it.

3. The relation of the individual to the group, who must be sacrificed for whom, the individual's rights and obligations.

4. What man wants and what he should have, human nature, human conduct, human motives, how he should be educated and made a part of the community.

Science has given new answers to all these problems in recent years but most of the people do not know them. And those who know, often do not feel them. For this reason, Mr. Frank considers the rebuilding of our culture the most insistent task before us.

"The task of constructing a new framework of concepts and beliefs to give order, meaning, and significance to life becomes ever more insistent," he



COTTON FIBER

This photomicrograph taken by Dr. Wanda K. Farr, of the Boyce Thompson Institute for Plant Research, shows "native" cellulose particle formation in living colorless plastids.