

aspects of chemotherapy of compounds of the sulfanilamide type.

DR. ROBERT BYRON JACOBS, of the research laboratory of physical chemistry of the Massachusetts Institute of Technology, to continue work with Dr. F. G. Keyes on the fundamental properties of materials at low temperatures.

DR. JOSEPH O. HIRSCHFELDER, research associate at the University of Wisconsin, to work with Dr. Linus Pauling, of the California Institute of Technology, in an investigation of the best ways and means for calculating the quantum mechanical energy of molecules.

DR. JANE ANNE RUSSELL, of the University of California, to continue biochemical investigations under Dr. C. N. H. Long at Yale University School of Medicine.

DR. ROBERT M. SIMHA, from the University of Vienna, to work with Professor V. K. LaMer at Columbia University on the statistical problems and kinetics of polymerization in long chain compounds.

DR. E. L. ROBERT STOKSTAD, biochemist, Western Condensing Company, Berkeley, Calif., to work with Professor H. Borsook at the California Institute of Technology on Vitamin Factor U and an unknown factor in polished rice.

DR. ROBERT P. WALTON, professor of pharmacology, School of Medicine, University of Mississippi, for chemical and clinical work at the University of Chicago.

The Selection Committee acting for the foundation consisted of Dr. Roger Adams, director of the Department of Chemistry of the University of Illinois; Dr. Hans T. Clarke, professor of biochemistry, Columbia University; Dr. Charles A. Kraus, director of the department of chemistry of Brown University; Dr. Arthur B. Lamb, dean of the Graduate School of Arts and Sciences of Harvard University, and C. Lalor Burdick, secretary of the Lalor Foundation.

THE WILLIAM LOWELL PUTNAM MATHEMATICAL COMPETITION AWARDS

THE Department of Mathematics of the University of Toronto, Toronto, Ontario, has won the first prize of \$500 in the third annual William Lowell Putnam Mathematical Competition, Professor W. D. Cairns, secretary-treasurer of the Mathematical Association of America, has announced. The members of the winning team were W. J. R. Crosby, J. C. Maynard, G. H. K. Strathy. The second prize of \$300 is awarded to the Department of Mathematics of Yale University, New Haven, Connecticut, members of whose team were J. E. Brewster, A. M. Gleason, G. R. MacLane. For the third prize of \$200 there is a tie between the Department of Mathematics of Columbia University and the Department of Mathematics of Cooper Union Institute of Technology, both in New York City. The members of the Columbia University team were Laurence Annenberg, Julius Ashkin, Paul Marcus; the members of the Cooper Union team were Murray Klamkin, Benjamin Lax, Samuel Manson.

In addition to these prizes to the departments of

mathematics with winning teams, a prize of \$50 each is awarded to the following five persons whose scores ranked highest in the six-hour examination: (names arranged alphabetically) W. J. R. Crosby, University of Toronto; A. M. Gleason, Yale University; E. L. Kaplan, Carnegie Institute of Technology; J. C. Maynard, University of Toronto; R. M. Snow, George Washington University. One of these five will later be chosen to receive a \$1,000 year scholarship at Harvard University, this award to be announced later. The members of the four winning teams will receive individual cash prizes according to the ranks of their teams, and all individuals receiving prizes will also receive medals.

Honorable mention has been awarded this year to three teams and to five individuals. The teams are from the Department of Mathematics, University of California, Berkeley, members being Julia H. Bowman, W. M. Kincaid, C. W. Lippman; the Department of Mathematics, University of California at Los Angeles, members being Richard Arens, Robert James, Harold Shniad; and the Department of Mathematics, Carnegie Institute of Technology, Pittsburgh, members of the team being S. N. Foner, E. L. Kaplan, W. E. Stuermann. The five individuals receiving honorable mention are: G. R. MacLane, Yale University; Samuel Manson, Cooper Union Institute of Technology; Paul Marcus, Columbia University; G. H. K. Strathy, University of Toronto; J. E. Wilkins, Jr., University of Chicago.

The third annual William Lowell Putnam Mathematical Competition was held on March 2, 1940, and 208 undergraduate mathematics students from 68 colleges and universities in the United States and Canada took part. Qualified readers graded the examination books, complete anonymity being maintained throughout by the use of numbers instead of names for identification.

The first competition was held in April, 1938, and the second in March, 1939. This competition was designed to stimulate a healthful rivalry in the undergraduate work of mathematics departments in colleges and universities in the United States and Canada, and is open only to undergraduates. The examination questions were taken from the fields of calculus, higher algebra, differential equations and geometry.

The Putnam Competition is made possible by the trustees of the William Lowell Putnam Intercollegiate Memorial Fund, left by Mrs. Putnam in memory of her husband, a member of the Harvard class of 1882, and is sponsored by the Mathematical Association of America.

SYMPOSIUM IN THEORETICAL PHYSICS AT THE UNIVERSITY OF MICHIGAN

THE eighteenth Symposium in Theoretical Physics will be held at the University of Michigan in connec-