

THE MONTH AT CALTECH

National Academy Elections

■ THE NATIONAL ACADEMY of Sciences, which convenes each April in Washington, D. C., last month added two members of the Institute staff to its roster of top-ranking United States scientists—Dr. James F. Bonner and Dr. Ralph E. Wilson.

Dr. Bonner, Professor of Biology at the Institute, and one of the country's outstanding biochemists and plant physiologists, was graduated from the University of Utah in 1931. He received his Ph.D. at Caltech in 1934 and was the first graduate student to get a degree in plant physiology here. He has been a member of the Institute faculty since 1935.

Dr. Bonner's first researches were on the mechanism by which growth hormones exert their effect on plant growth—and he is still continuing these studies. As a National Research Council Fellow in Holland and Switzerland in 1934 he began to study the specific effect of growth hormones on the growth of plant roots. This led to a program of research on the role played by vitamins in plants.

In studies of the substances given off by injured tissue that have to do with wound healing in plants, Dr. Bonner (with A. J. Haagen-Smit and James English) chemically isolated a wound hormone in pure form. In 1938 he began an investigation—which was suspended during the war and only recently revived—of what makes plants flower.

As a logical extension of his work on growth hormones in plants (which, in simple language, are substances in one part of a plant that tell another part what to do), Dr. Bonner began a study of plant sociology—specifically, the chemical substances in one plant which tell *another* plant what to do.

During the war Dr. Bonner began to investigate the chemistry and physiology of rubber formation in the guayule plant, working toward possible synthetic pro-

duction of natural rubber. This work is still continuing, as are two other research projects begun during the war—one on general investigations of the proteins and enzymes of plants, another on viruses in plants.

Dr. Bonner is President of the American Society of Plant Physiologists, and Chairman of the Physiological Section of the Botanical Society of America.

Dr. Ralph Wilson, Mount Wilson and Palomar Observatories Astronomer and Research Associate in Astronomy at the Institute, has been on the Mount Wilson staff since 1938, with Caltech since 1948.

He is best known for his work in stellar astronomy, concerning the motion, position, luminosity, etc. of stellar bodies. During the last war he was a consultant with the OSRD's Office of Field Services on the development of altimeters and oxygen apparatus. In World War I he was the American Representative on the Committee of Allies at Santiago, Chile, and also an aeronautical engineer for the Bureau of Aircraft Production at Dayton, Ohio.

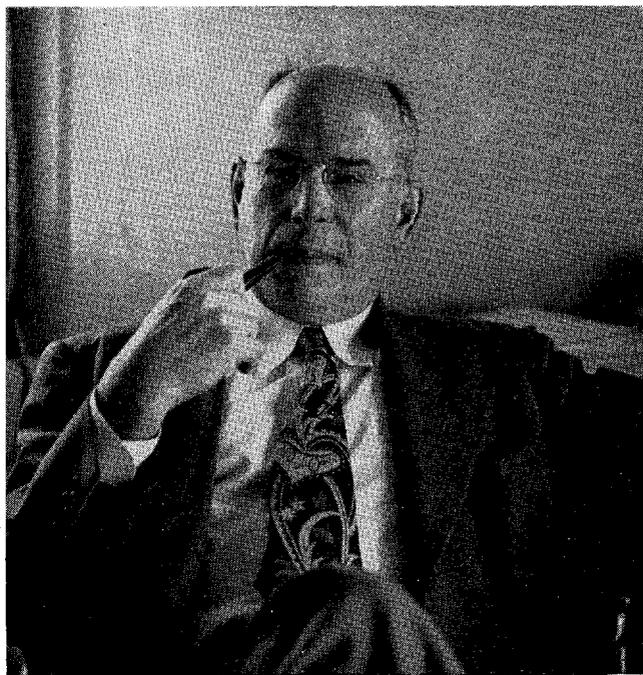
He is a member of the American Astronomical Society, of which he was Councillor from 1934-37; and the Astronomical Society of the Pacific, of which he was president in 1946. In 1926 he was awarded the Gold Medal of the Royal Danish Academy of Sciences, and in 1948 he represented the Carnegie Institution of Washington and the National Research Council at the meeting of the International Astronomical Union in Zurich.

The election of Dr. Bonner and Dr. Wilson to the National Academy of Sciences brings the total of Caltech men in the Academy to 27. The others: Carl D. Anderson, George W. Beadle, Robert F. Bacher, Eric T. Bell, Max Delbruck, Lee A. DuBridge, Paul S. Epstein, Beno Gutenberg, John G. Kirkwood, Charles C. Lauritsen, Max Mason, Robert A. Millikan, Linus Pauling, Chester Stock, A. H. Sturtevant, Theodor H. von Karman, Frits Went, Oliver R. Wulf—and, from the Mount

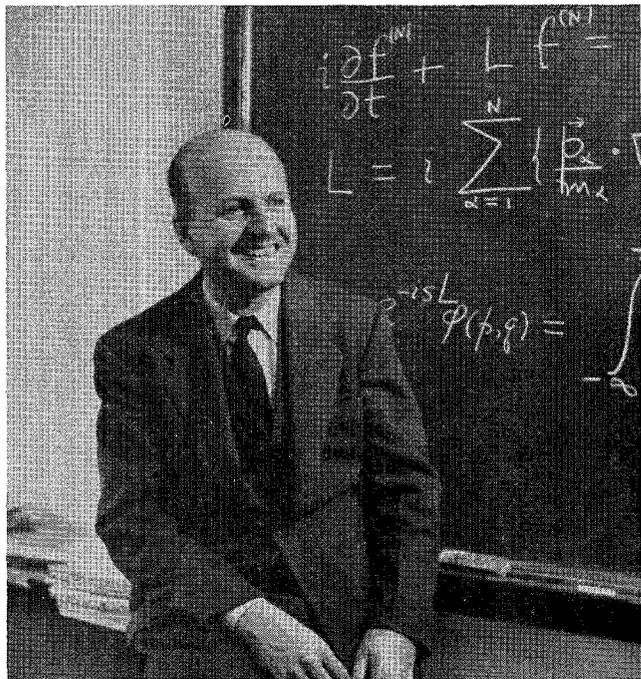
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Bonner



Wilson



Kirkwood

Wilson and Palomar Observatories staff; Walter S. Adams, Horace W. Babcock, Ira S. Bowen, Edwin P. Hubble, A. H. Joy, Paul Merrill, Seth Nicholson.

Richards Medal Winner

■ DR. JOHN G. KIRKWOOD, Professor of Chemistry at the Institute, has been awarded the American Chemical Society's Richards Medal for 1950. One of the highest awards in the field of chemistry, the medal is presented every two years for "conspicuous achievement." Dr. Kirkwood's most conspicuous achievements have been in the field of statistical mechanics, and its application

to chemical problems; and in the field of protein chemistry. He has developed a new method of separating proteins—the most recent specific example of this work being the separation of that part of the human blood which contains the antibodies to disease.

Dr. Kirkwood is the ninth recipient of the Richards Medal, and the third member of the Caltech faculty to win the award. Dr. A. A. Noyes, who inaugurated the Institute's program of instruction and research in chemistry, was the first recipient. Dr. Linus Pauling, Chairman of the Division of Chemistry, received the medal in 1947.

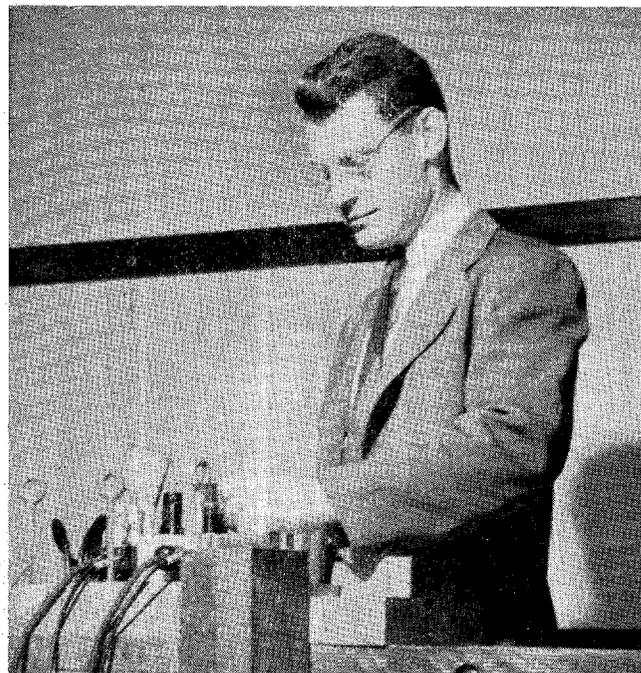
Guggenheim Fellows

■ WHEN THE JOHN SIMON GUGGENHEIM Memorial Foundation announced its annual awards last month, two members of the Institute were named to receive Guggenheim Fellowships for study abroad—Dr. Frank Host Dickey, Merck Research Fellow in Chemistry and Biology; and Dr. David A. Lind, Senior Research Fellow in Physics.

Dr. Dickey will leave in September to spend a year which will be divided between Cambridge, Upsala, and Paris, and devoted to studying the mechanism of the formation of antibodies, enzymes and genes. Dr. Lind leaves in June for the Nobel Institute for Physics in Stockholm, and—later in the year—the Eidgenossische Technische Hochschule in Zurich, where he will study the methods and techniques of precision nuclear spectroscopy.

Dr. Kenneth S. Pitzer, Caltech '35, Director of the Division of Research of the Atomic Energy Commission in Washington, D. C., also received a Fellowship for 1950-51, for a study of the chemical applications of quantum and statistical mechanics.

Though he was awarded his Guggenheim in 1946, Dr. Arthur W. Galston, Senior Research Fellow in Plant Physiology, hasn't utilized his Fellowship yet. This summer he leaves for a year at the Medical Nobel Institute in Stockholm, where he will continue his studies of the effects of light on plants.



Lind



Dickey