

July 1, 1953
~~November 1, 1952~~

SELMAN A. WAKSMAN

Professor of Microbiology and Director
of the Institute of Microbiology, Rutgers University

Dr. Waksman was born July 2, 1888, in Priluka, a small town in the Ukraine, Russia. His parents were Jacob and Fraida (London) Waksman. He received his early education from private tutors. He completed his school training in Odessa, where he graduated in 1910, from the Fifth Gymnasium. He immediately left for the United States, in order to receive a College education.

He entered Rutgers College in 1911 and received his B.Sc. in Agriculture in 1915. He became a naturalized United States citizen in 1916. Upon graduation from College he was appointed as research assistant in soil microbiology, under Dr. J. G. Lipman, at the New Jersey Agricultural Experiment Station, and was allowed to continue graduate work at Rutgers. In 1916 he obtained his M.Sc. degree. He was then appointed Research Fellow at the University of California where he received his Ph.D. degree in Biochemistry in 1918.

He was now invited to return to Rutgers, where he received an appointment as Microbiologist at the Experiment Station and as Lecturer in Soil Microbiology at the University. He was made Associate Professor in 1925, and full Professor in 1930. When the Department of Microbiology was organized in 1940, he became Professor of Microbiology and Head of the Department.

In 1931, he was invited to organize a division of Marine Bacteriology at the Woods Hole Oceanographic Institution and was appointed as marine bacteriologist at that institution, where he served until 1942, when he was elected as a Trustee. He also held industrial positions for limited periods of time (Cutter Laboratories in 1918, Takamine Laboratory, 1919-1920), and has served as consultant to several government (National Research Council, Office of Scientific Research and Development), industrial and scientific (Sloan-Kettering Institute) organizations.

He is a member, honorary member, or fellow of a number of scientific societies in this country and abroad (France, Sweden, Mexico, India, Germany, Brazil, Spain). Among the American Societies to which he belongs are the Society of American Bacteriologists, of which he is a former president, the National Academy of Sciences, American Academy of Arts and Sciences, and various others. He was president of Commission III on Soil Microbiology of the International Society of Soil Science (1927-1935). He was elected as Corresponding member of the French Academy of Sciences in 1937.

In the summers of 1946, 1947, 1950, 1951 and 1952, Dr. Waksman lectured before scientific groups in various European countries and was given an honorary degree of Doctor of Medicine by the University of Liege in Belgium,

by Pennsylvania Military College
and Philadelphia College of
Pharmacy & Science in 1953

Doctor honoris causa by the University of Madrid in Spain, and Doctor honoris causa in Medicine by the University of Athens in Greece. He also holds honorary degrees of Doctor of Science, awarded to him by Rutgers in 1942, by Princeton University in 1947 and by Rhode Island State College in 1950; Doctor of Laws from Yeshiva University, New York, in 1948, and Doctor of Hebrew Letters from Hebrew Union College in 1950.

Dr. Waksman's work in the field of Microbiology has been recognized by numerous scientific and other societies in recent years. He won the Nitrate of Soda Nitrogen Research Award in 1929, the Passano Foundation Award in 1947, the Emil Christian Hansen Medal and Award from the Carlsberg Laboratories in Denmark the same year, and the Leeuwenhoek Medal from the Netherland Academy of Sciences in 1950; the New Jersey Agricultural Society medal, the Albert and Mary Lasker Award by the American Public Health Association, and the Amory Award by the American Academy of Arts and Sciences, all in 1948; the John Scott Award, Page One Award, N. J. State Veterans Award; American Pharmaceutical Manufacturers Award, in 1949; the Charles Mickle Fellowship by the University of Toronto for outstanding contribution to medicine during the previous 10 years in 1950, and many others. In 1950, he was made Commander of the French Legion of Honor. In 1952, he was voted as one of the most outstanding 100 people in the world to-day (Little, Brown & Co.).

He was also recipient of the Nobel Prize in Physiology and Medicine for 1952. Order of Merit of Rising Sun conferred by Emperor of Japan. Honorary degree of h. D. conferred by Keio University. Beith Shalom Humanitarian Award for 1952.

He is a member of Alpha Zeta, Phi Beta Kappa and Sigma Xi; he served as President of the Rutgers Chapters of the last 2 organizations.

Dr. Waksman has published more than 350 scientific papers, and has written, alone or with others, twelve books. Among these are "Enzymes," 1926; "Principles of Soil Microbiology," 1927, 1932; "The Soil and the Microbe," 1932; "Humus," 1936, 1938; "Microbial Antagonisms and Antibiotic Substances," 1945, 1947; "The Actinomycetes," 1950; "Soil Microbiology" in 1952; he also edited "Streptomycin--Nature and Practical Applications" in 1949; "The Literature on Streptomycin" in 1948, 1952; "Neomycin" and others.

His special fields of work include, in chronological order, the microbiological population of the soil, sulfur oxidation by bacteria, microorganisms and soil fertility; decomposition of plant and animal residues, nature and origin of humus; occurrence of bacteria in the sea and their role in marine processes; production and nature of antibiotic substances. He has isolated, together with his students and associates, a number of new antibiotics, including actinomycin, clavacin, streptothricin, streptomycin, grisein, streptocin, neomycin, fradycin, fungicidin RAW, and candicidin.

In May, 1949, the Trustees of Rutgers University voted to establish an Institute of Microbiology, and made Dr. Waksman its first Director. The larger portion of the funds derived from royalties obtained from streptomycin, neomycin, and other antibiotics have been assigned for the building and support of this .

Institute, which will be used for research and advanced teaching, on a doctorate and post-doctorate level in microbiology. Out of the small portion of the royalties assigned to him personally, he established "The Foundation for Microbiology," for the support of research in this field at various institutions.

He is married. His wife is Deborah B. (Mitnik) Waksman. He has a son, Eyron H. Waksman, a former Captain in the Medical Corps, U. S. Army, who became a Fellow at the Mayo Clinic and then a U.S. Public Health Fellow at Columbia University. He is now Research Association at Massachusetts General Hospital, Boston.



Tecnológico
de Monterrey