

**MEMORIAL RESOLUTION OF THE FACULTY
OF THE UNIVERSITY OF WISCONSIN-MADISON**

ON THE DEATH OF PROFESSOR EMERITUS LOUIS W. BUSSE

Professor Emeritus Louis W. Busse was born in Reedsville, Wisconsin on November 26, 1911 and died in Madison on February 11, 2011. He received an AB degree from Lawrence College in 1934, a BS in pharmacy in 1936 from the University of Wisconsin and a PhD in pharmacy in 1940, also from Wisconsin. Other than service as a drug analyst with the War Production Board during WWII (1944) and a year as a visiting professor at the University of London (1961), Louis dedicated his entire career (1940-1978) to pharmaceutical research, education and administration at the University of Wisconsin-Madison School of Pharmacy. He served as the school's associate dean from 1954-1968 and as its coordinator for extension services in pharmacy from 1956-1966. He was a leader in developing continuing education for pharmacy practitioners, pharmacy internships and continuing education conferences for industrial pharmaceutical scientists. In the latter, he developed and directed the annual Land O' Lakes Industrial Pharmacy Research Conferences from 1959-1968; the conferences remain a prominent venue for bringing educators and industrial pharmaceutical scientists together from all over the world. He retired in 1978 as the Edward Kremers Professor of Pharmacy.

Professor Busse was considered one of the leading pioneers in advancing the concept of "physical pharmacy," which emphasized the physical-chemical aspects of dosage forms. Although his research spanned a range of topics, he is best recognized for his studies on the mechanistic aspects of the formulation development of tablets. This is a subject of enormous importance since the bioavailability, and hence the clinical efficacy, of drugs is dependent on the tensile strength and disintegration rate of tablets.

Compaction is an essential step in the manufacture of tablets, which includes compression (volume reduction and particle rearrangement) and consolidation (interparticulate bond formation). In the early 1950s, Professor Busse designed and constructed an instrumented tableting machine to study the physics of compaction, and he developed a rigorous scientific framework that catalyzed the transformation of the area of pharmaceutical powder technology from an art into a scientific discipline. Further, his work contributed significantly to high-precision dosing and manufacturing efficiency that made tablets the most popular drug dosage forms. Over 50 publications and two patents were the result of his studies. Professor Busse also published extensively in the areas of pharmaceutical education and continuing education, and he was a strong advocate for the physical and biological sciences in the pharmacy curriculum.

He received the prestigious American Pharmaceutical Association (APhA) Ebert Prize in 1951 for his research on the technique of spray drying pharmaceutical powders and for a new method of heat sterilizing solutions. Other honors included the Mortar and Pestle Award for service to Wisconsin Pharmacy (1950), the APhA Foundation Achievement Award for Advancement of Pharmacy (1967), and a University of Wisconsin Honorary Citation (1979). In 1977, a symposium was held in Dr. Busse's honor at the Academy of Pharmaceutical Sciences meeting in Phoenix to honor his career contributions to the science of powder compaction. His many friends, former students and professional colleagues honored him upon his retirement by establishing the annual Busse Lectureship to bring speakers to the UW School of Pharmacy who have a fundamental research interest combined with a strong knowledge of industrial pharmaceutical research.

During his long and illustrious career, Louis served as an active member of many professional and civic organizations. He was a founding member of the American Institute of the History of Pharmacy, the American Association of Pharmaceutical Scientists, and the Madison West Rotary Club. He served terms as president of the Wisconsin Academy of Science, Arts and Letters and of the Academy of Pharmaceutical Sciences, national president of the Rho Chi Honorary Society, chairman of the International Congress of Pharmaceutical Sciences, and president of the West Madison Rotary Club. From 1974-1979, he was president of the University Faculty Association, was elected for two terms on the executive committee of the American Association of Colleges of Pharmacy, and was a member of the board of trustees of U.S. Pharmacopoeia (1975-1980).

Louis Busse was a very friendly person, a great leader, and a great mentor to his colleagues and students. He is remembered with respect, admiration, and affection.

Professor Busse is survived by his wife of over 72 years, Genevieve (Slater) Busse; two children, Louis III and Carolyn Klemett (Phil); two grandchildren and two great-grandchildren. Louis was proud to come from a long line of community pharmacists, including his father, uncle and brother. In his retirement, Louis became an avid golfer and was honored on the accomplishment of shooting an 18-hole score less than his age.

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