

Introductions of Dr. Joseph F. Heyse



Dr. Joseph F. Heyse (1952–2019) was one of the most respected and influential leaders in biopharmaceutical statistics. During his 42-year career at Merck & Co., Inc., he played a pivotal role in advancing statistical research, shaping clinical and health economics methodologies, and strengthening the role of statistics in pharmaceutical development.

As shared by his Merck colleague, Dr. Raymond Bain, Joe joined Merck in 1976 as a statistician supporting preclinical research and quickly began developing statistical methods that later became industry standards. He subsequently moved into clinical pharmaceutical research and health economics, and in 1990 was appointed director of Merck's newly established Department of Health Economic Statistics. In 1993, he assumed leadership of the clinical biostatistics group at Merck's Pennsylvania site, including vaccine biostatistics during a period of extraordinary growth and scientific challenge. In 2009, Joe transitioned to the head of the early development statistics group at Merck, and when he passed away in 2019, he was in his fifth year as a scientific associate vice president and head of the biostatistics methodology research group. Throughout his professional career, Joe published books and many peer-reviewed journal papers.

Joe's impact extended far beyond Merck. His statistical leadership was instrumental in the successful development and evaluation of major vaccines against rotavirus, human papillomavirus, and varicella zoster virus—programs that required large, complex, and innovative clinical studies to address critical efficacy and safety questions. Through his deep statistical expertise, clinical insight, and collaborative leadership, Joe helped make possible vaccines that have saved hundreds of thousands of lives and prevented immeasurable suffering worldwide.

Beyond his scientific achievements, Joe was widely admired as a mentor, colleague, and leader whose vision and generosity helped cultivate generations of statisticians in industry and academia. Joe served on doctoral dissertation advisory committees at Temple University and the University of Maryland Baltimore County (UMBC). I still remember his encouraging words and strong support to junior researchers, when he helped my PhD student in thesis research at UMBC. He is an inspiring leader to work with and a role model for us to follow.

Joe was an elected fellow of the American Statistical Association (ASA), fellow of the American Association for the Advancement of Science (AAAS), founding editor of *Statistics in Biopharmaceutical Research*, and editor-in-chief of *Statistical Methods in Medical Research*. Joe was broadly engaged in the establishment and further development of our profession in the biopharmaceutical industry. Joe was innovative, highly collaborative, and exemplary in many different aspects. He touched the lives of many people through the pharmaceutical products he worked on at Merck and touched the lives of many statisticians across the industry who later became leaders in their respective fields.

To honor his legacy in our UMBC-Stanford Workshop on Clinical Trials and Regulatory Science, **the Joe Heyse Memorial Short Course series** and **Joe Heyse student poster award** are established to recognize his significant contributions to biopharmaceutical statistics and public health and beyond, and to promote integrated efforts among academia, industry, and government in training and nourishing junior researchers and students.