

Memorial Resolution
RESEARCH EMERITUS PROFESSOR ROBERT W. BRIGGS
(December 10, 1911--March 4, 1983)

Research Emeritus Professor Robert W. Briggs died on March 4, 1983, after having served Science and Education for nearly 50 years and Indiana University for 27. He was born in Watertown, Massachusetts, on December 10, 1911.

Professor Briggs will be remembered by the international scientific community for generations to come as one of a handful of "innovators" who left a permanent imprint on a broad range of biology. During the 1950's, Professor Briggs and his collaborator, Thomas King, pioneered and perfected the procedures for nuclear transplantation. They did this in order to answer a fundamental question in embryology. That question, as most important ones are, is simply understood. Does an individual cell or--more specifically--its chromosomes contain all of the genetic potential of a fertilized egg, or does cell division and development modify or restrict individual nuclei so that each one is no longer "totipotent"? The technique developed was the technically intimidating procedure of removing an individual nucleus from a developing frog embryo (blastula and gastrula stage) and microinjecting it into an enucleated egg. The embryos and adults that developed from these experiments were the focus of a series of important papers by Professor Briggs examining nuclear differentiation during embryonic development. All modern-day genetic experiments in which vertebrate cells are injected with nuclei, chromosomes, or free DNA to study gene expression, including animal cloning, derive from the original experiments performed by Professor Briggs. This early work was also the basis for a significant body of subsequent research Professor Briggs did on related aspects of amphibian development and genetics. This includes his establishment of a "school" of amphibian embryologists through the many students and colleagues he taught and inspired, the establishment of a "field" of axolotl developmental biology through his collaboration and support of Dr. Rufus Humphrey, and his present studies (continuing through his surviving wife and partner, Francoise Briggs) on an important developmental mutant affecting the genetically "quiet" earliest stages of development.

Pure scientific research was only one facet of Bob Briggs' interest. He was a dedicated and demanding teacher at the undergraduate and graduate levels. His most important lessons to students were given by way of example. He was the epitome of intellectual honesty and clear rational analysis of scientific data and ideas. Bob imparted this to his students as well as the necessity to ask important scientific questions. His legacy is to a great extent these students who will carry on the solid intellectual traditions and honesty exemplified in Bob's personality. He was no less interested and powerful in communicating an interest in biology to freshmen. He was as much at home with undergraduates in his office as with his colleagues whom he often visited in their labs and offices, at a pub, or on the golf course. Several of his friends were motorcycle enthusiasts, like himself.

Academically he was a quiet (usually) activist who was as satisfied to see positive goals achieved through the involvement of others as he was to get credit himself. He was very influential in "modernizing" the undergraduate biology curriculum. This goal plus his active and successful involvement in recruiting strong, young, faculty members propelled him into the chairmanship of his department. Here he was a prime force in setting the stage for consolidation of the biology faculty into a single department, a task not without its difficulties. He also successfully faced the very difficult problem of raising budgets in a time of rapidly expanding teaching and research development. Almost incidentally he strengthened a graduate program based on the principle that the best Ph.D. training program is one that forces students face-to-face with several competent advisors and then gives them sufficient room to either develop or fail in the real and difficult world of research. The chairmanship also permitted Dr. Briggs to apply his exceptional recruiting abilities to the areas of genetics, molecular biology, ecology, and ethology, all of which were significantly strengthened during his tenure. He can be given most of the credit for our having one of the strongest developmental and genetics departments in the country. His efforts and influence continued after he left the chair. Perhaps most importantly he set an example of academic statesmanship by continuing to support, to advise, and to defend--if necessary--all those young faculty he influenced in coming here. He was unselfish with regard to how much of his own time or political currency might be required to support worthy academic objectives.

Most of Bob's life was spent in the laboratory and at the university. In both places he dedicated himself to large goals--disdaining trivia--and to supporting colleagues. He was never opportunistic or self-promoting. Bob knew the value of his opinions and could be stubborn in communicating them, but mostly his advice and opinions were actively sought. He was a bit unorthodox in life style; he loved and respected a broad range of music and art; he valued the company of an astonishingly diverse group of friends. He will be remembered by his friends as being honest, democratic, and acute in his insight into scientific, academic, or human problems.

Bob always left his own accomplishments and statistics until last, and so do we. He was an undergraduate at Boston University (B.S., 1934) and a graduate of Harvard (Ph.D., 1938). His first position was at McGill University, which he left for the Institute for Cancer Research (formerly the Lincanau Institute) (1942-55). He came to Indiana University in 1956. He was an active member of a number of societies (Naturalist, Genetics, Anatomists, Zoology, Cancer Research, Developmental) and was one of the few people to be honored with membership in both the American Academy for Arts and Sciences and the National Academy of Sciences. In 1973 he was awarded the prestigious Charles-Leopold Mayer Prize of the Academy of Sciences, Institute of France. His ability and dedication left the university and its students better and stronger for his having been here. His companionship greatly enhanced the lives of many friends.

John Sinclair
David White