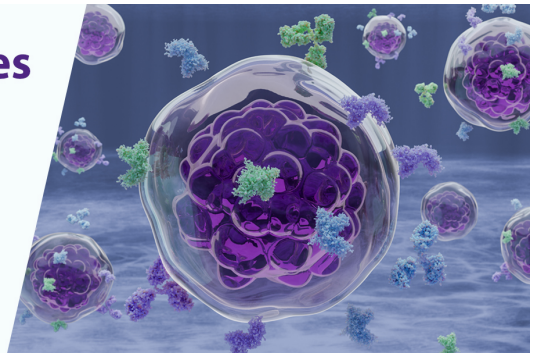

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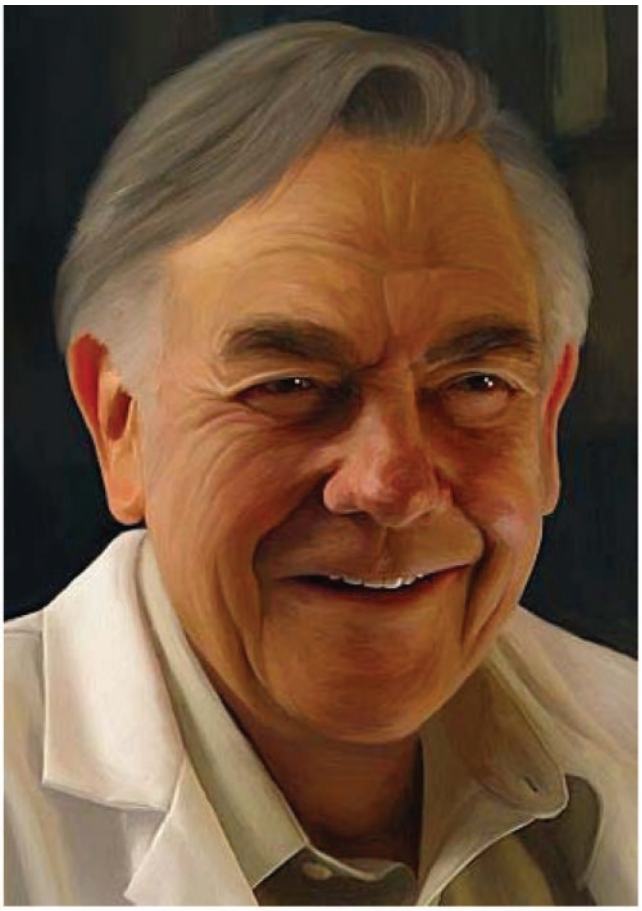
IN MEMORIAM

D. Bernard Amos
April 16, 1923–May 15, 2003

The immunology community mourns the passing of D. Bernard Amos. He leaves behind a loving family, a lifetime of achievement, and an international community of colleagues, collaborators, trainees, and admirers.

Dr. Amos' leadership, mentoring, and scientific discoveries have had a worldwide impact. He was an enduring leader and innovator in all of his efforts. He was elected President of The American Association of Immunologists in 1980. Dr. Amos was also President and Founder of the International Transplantation Society, the major international organization of transplantation scientists as well as the co-founder and Editor-In-Chief of the journal *Human Immunology*. In addition, he was a member of the organizing committee for the First International Congress of Immunology, the first Chair of the WHO Nomenclature Committee that standardizes the naming of histocompatibility Ags, first Chair of the National Institutes of Health committee on Transplantation and Immunity, and served as Chair of the Task Force on Immunology and Disease for National Institute of Allergy and Infectious Diseases. Dr. Amos also served on the scientific advisory boards of St. Jude Hospital, Tufts Cancer Center, and the University of Pennsylvania Cancer Center. In recognition of his scientific contributions and leadership, Dr. Amos earned many honors, including membership in the National Academy of Science, the Cancer Research Institute, and the Institute of Medicine. Other honors include the 3M Award from FASEB, the Rose Payne Award for Distinguished Science by the American Society for Histocompatibility and Immunogenetics, and the National Institutes of Health Research Career Award. Dr. Amos was also the James B. Duke Professor of Immunology and Experimental Surgery, retaining this title as emeritus when he retired from Duke University Medical Center in 1993.



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D. Bernard Amos

Scientifically, Dr. Amos made seminal and enduring contributions to the areas of immunogenetics, tumor immunity, and transplantation immunology. He accomplished what few investigators dream: to discover basic mechanisms of immune function and to translate those findings into the treatment of human disease. From the very beginning, Dr. Amos was one of the major players in the field of HLA genetics and biology. After completing his M.D. and medical internship at Guy's Hospital in London, Dr. Amos began his research career there as a fellow with Professor Peter Gorer in 1952. During this time, Dr. Amos made fundamental contributions to the identification, characterization, and understanding of the H-2 antigenic system that was perceived to be the major immunologic barrier to transplantation and to tumor immunity in mouse models. In 1955, he joined Professor Ted Hauschka's cancer research group at Roswell Park Memorial Hospital, where he continued his work in tumor immunity. At the same time, he described the first sex-linked histocompatibility Ag and developed his expertise in skin graft models of tissue rejection. These studies and his pioneering studies with leukoagglutination assays helped lay the groundwork for later discovery of the major histocompatibility Ags in man.

In 1962, Dr. Amos was recruited to Duke University as Professor of Immunology and Professor of Experimental Surgery. As Chief of the Division of Immunology, he built one of the premier clinical and research transplantation centers in the world. His leading research during that period centered on fundamental immunogenetics in mouse models, which he then rapidly translated into human serotyping and immunogenetics. Dr. Amos was the first to recognize the need for international collaboration and standardization of reagents and techniques used in histocompatibility typing in the United States and Europe and most noteworthy, in developing countries. To address

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this need, he organized and hosted the first International Histocompatibility Workshop at Duke in 1964, bringing together the expertise and reagents of leading scientists from around the world. The trust and relationships that were distilled during that Workshop created a remarkable enthusiasm and impetus for collaboration that accelerated the discovery of HLA and its role in the immune system and transplantation. As a lasting legacy, the 13th International Histocompatibility Workshop and Congress was held in 2002.

Dr. Amos was the first to use serologic tests for histocompatibility to select sibling donors for optimal kidney transplantation, which dramatically enhanced graft survival. These serologic tests guided the first kidney transplant performed at Duke University in 1965. Through these discoveries and their application, Dr. Amos fathered and contributed enormously to the critically important area of organ transplantation, which he guided from fledgling to pivotal status. Dr. Amos fostered the establishment of a National Institutes of Health bank for accumulating serologic reagents for the emerging field of tissue typing for transplantation. This bank distributed highly characterized antisera and methods for HLA research and for typing patients and organ donors. These essential reference reagents enabled the establishment of histocompatibility testing laboratories and transplantation programs throughout the world. In the late 1960s, Dr. Amos co-founded, with David Hume, the Southeastern Regional Organ Procurement Program, now SEOPF. This was the first organization in the world to share cadaver organs on the basis of tissue matching and served as the model for United States and international organ sharing organizations such as the United Network for Organ Sharing, EuroTransplant, and the National Marrow Donor Program. In honor of his seminal contributions to this field, SEOPF gives an annual award in Dr. Amos' name to outstanding young scientists for cutting-edge research in transplantation.

Dr. Amos' translational efforts were based on his groundbreaking basic research. He was a co-discoverer of MHC class II gene products, defined many other important histocompatibility genes and their alternative forms, and demonstrated that these multiple genes are usually passed as a group from parent to child. In the early 1970s, Dr. Amos' continued interests in the mechanisms of tumor immunity also resulted in several key discoveries. These included the first demonstration in man of loss of histocompatibility Ag expression as a result of malignant transformation, a milestone in the field of tumor immunology. The significance of this observation has only recently been understood in the context of the normal function of histocompatibility molecules, the consequence being escape from tumor immunity. A second major contribution was the development, with Professor Gideon Burke, of a powerful mouse model for tumor rejection, which allowed them to investigate and elucidate the many properties of CTL. Other major scientific contributions made by Dr. Amos and his colleagues included early population and large family studies demonstrating the diversity of histocompatibility types in different ethnic groups. He also established the association of histocompatibility genes with various disease states, such as iron storage disease and ragweed allergy. Thus, Dr. Amos remains a premier role model for both the basic and translational scientists of today.

Of all his many accomplishments and awards, Dr. Amos' friends and colleagues were the most prized of his credentials. Bernard has had a profound impact on many individuals during his life. He has been instrumental in the training, education, and development of generations of clinical and basic scientists, many of whom are now prominent investigators in their fields, and numerous directors of major histocompatibility laboratories nationally and internationally. He arranged for educational workshops at Duke University to teach various typing methods to those who wanted to pursue leuko-histocompatibility testing. Dr. Amos trained individuals from developing countries and helped establish clinical laboratories in Chile, Brazil, Argentina, Peru, Thailand, India, and other emerging countries. Dr. Amos' effectiveness as a scientist and his devotion to teaching have been recognized with the establishment of the Bernard Amos Fellowship, which funds graduate student training in Immunology at Duke University.

Dr. Amos' success as a leader is attributable to his personal character and effective interpersonal skills. Always humble, he conveyed tremendous enthusiasm for science and life, sharing his own ideas, and always being excited by the new ideas and perspectives of others. His modest and unassuming manner and wonderful sense of humor brought everyone in the field together. His enthusiasm and commitment to thoughtful experimentation and collaborative efforts had a major influence on the discovery of the HLA immunogenetic system by engaging the major players in the field to collaborate in joint efforts of discovery. The importance of his relationships with others and his exceptional scientific contributions have been highlighted in a recently published tribute on the occasion of the 13th International Histocompatibility Workshop and Congress (A tribute to Bernard Amos, *Clin. Transplant.* 2002;1675–91). His memory and legacy touches us all, as Bernard Amos truly left the world of science and medicine a better place for future generations.

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