Edward D. Bird


In 1971, he was recruited to conduct primary research in Huntington’s disease (HD; an inherited neurodegenerative disease) at the University of Cambridge in England. There, he worked closely with Dr. Leslie Iversen at the MRC Neurochemical Pharmacology Unit and established a brain tissue bank to provide critical samples for research purposes. Dr. Bird’s scientific investigations focused on the neurochemistry of HD and related disorders. Together with Dr. Iversen, he published several prominent scholarly articles on the subject. In 1978, Ted returned to the U.S., accepted a position as an Associate Professor of Neuropathology, at the Harvard Medical School, and was tasked with establishing a brain bank in Boston known as the Harvard Brain Tissue Resource Center (HBTRC) at the Mclean Hospital in Belmont, MA. In 1986, he was promoted to Professor of Neuropathology, within the Department of Neurology.

Dr. Bird was a pioneer in the investigation of degenerative brain disorders. A world-renowned expert on the pathology of HD, he made several landmark discoveries on this disorder, focusing particularly on neurochemical and cellular abnormalities in the basal ganglia and cerebral cortex. He published nearly 200 original papers on HD and related neurodegenerative disorders.

In 1978, Alfred Pope, MD, and Steven Matthyssse, PhD, of McLean Hospital – Harvard Medical School,
provided the impetus to establish the Harvard Brain Tissue Resource Center (HBTRC), one of the first brain banks in the United States. Dr. Bird was recruited to be its founding director. With the goal of expanding our knowledge and understanding of psychiatric and neurodegenerative diseases, Dr. Bird established national and international protocols for human brain tissue donation. Prior to the HBTRC, few researchers could study the chemistry or anatomy of psychiatric and neurodegenerative diseases of the brain because the necessary human brain samples were simply not available. Working closely with Drs. Edward P. Richardson and Jean-Paul Vonsattel, of the Department of Neuropathology at the Massachusetts General Hospital, the HBTRC established rigorous standardized protocols for documenting the pathological features and diagnoses of each donated specimen, and for the precise dissection and distribution to the scientific community of tissue aliquots from specific brain regions. In this manner, researchers could readily acquire sufficient numbers of samples from disease and matched controls, precisely dissected from corresponding brain regions. The HBTRC was quickly recognized as a crucial global research resource for brain diseases. Shortly after the HBTRC opened its doors, Dr. Katherine Bick, then deputy director of the National Institute of Neurological Disorder and Stroke noted “giving one’s brain is the last positive thing someone who has had a terrible disease can do.”

More than 600 HD brain specimens were donated to the HBTRC during Dr. Bird’s directorship. These samples were extensively studied and provided critical information regarding the pathogenesis of the disease. In collaboration with Drs. Jean-Paul Vonsattel, Edward P. Richardson, Richard H. Myers, and others, these studies were critical in identifying those brain regions most susceptible to the disease, and those involved in the earliest manifestations of neurodegeneration. These published findings have been cited thousands of times in the scientific literature and are the basis of the pathological understanding of the disease itself.

Through public and professional outreach and education, Dr. Bird was able to develop the HBTRC into a vital resource for investigators globally. Under Dr. Bird’s direction, the HBTRC distributed thousands of brain tissue aliquots, leading to the publication of hundreds of major scientific discoveries. Thanks to Dr. Bird’s vision, the HBTRC has become a centralized resource for the collection and distribution of human brain specimens for brain research. It is one the largest brain repositories in the world, collecting from brain donors suffering from a broad variety of brain disorders as well as from unaffected “control” donors. Today, it stores over 9,000 source brains of specimens processed for research, including many collected under Dr. Bird’s directorship. In 2013, the HBTRC was selected to become one of six National Institute of Health Neurobiobank sites, a network of federally funded brain repositories providing brain specimens to scientists from the nation’s top research and medical centers as well as across the world.

In 1980, the Massachusetts General Hospital (MGH), in collaboration with Dr. Bird’s HBTRC and the Department of Neurology at Boston University, was awarded the National Institutes of Health multi-institutional Huntington’s disease Research “Center Without Walls”. This Center was the result of lobbying for a federally funded program focused on HD research by Marjorie Guthrie, the widow of the famed folk singer Woody Guthrie (“This Land is Your Land” and other famous songs) who was afflicted with HD. The HBTRC was a cornerstone of that program and provided an important impetus to locate this first of its kind HD focused Research Center in Boston.

In addition to his basic science contributions to neurodegenerative diseases, Dr. Bird was active in the care of HD patients. From 1980 to 1997, he was a member of the outpatient neurology staff for the HD clinic at the MGH, working closely with Dr. Joseph B. Martin, the then Chair of Neurology at MGH, and Dr. Walter Koroshetz. This clinic served hundreds of HD patients and their families from the entire
New England six state region.

Shortly after coming to Boston, Dr. Bird also established a unit specializing in the long-term care of HD patients at the former Middlesex County Hospital on Trapelo Road, less than three miles from the HBTRC at McLean Hospital. This facility, which has subsequently closed, became an international model for providing chronic long-term care of late stage HD patients and at its peak cared for several dozen individuals diagnosed with HD. The close proximity to McLean Hospital allowed for a short post-mortem interval for individuals participating in the HBTRC donor program. In addition to being an outstanding scientist, Dr. Bird was a caring and knowledgeable clinician who was beloved by the New England Huntington families.

Respectfully submitted,

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