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The  
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Hospital

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# NEWS

For Immediate Release  
September 1989

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UNIVERSITY HOSPITAL RECEIVES FIRST GRANT AWARDED  
BY HAIRY CELL LEUKEMIA FOUNDATION

Boston, Mass.--The University Hospital (UH) is the recipient of the first fellowship granted by the newly founded, Newton-based Hairy Cell Leukemia (HCL) Foundation. The \$50,000, two-year grant will fund the research of Kyran Bulger, M.D., a member of UH's Section of Medical Oncology, who will conduct laboratory investigations on the effectiveness of a new, genetically engineered drug called IL-2-toxin.

HCL, a rare, incurable disorder that generally strikes white males in their 60s, affects an estimated 400 people a year. Instead of normal white blood cells that control the body's immune response, HCL causes the body to produce malignant white blood cells or lymphocytes. These cells proliferate throughout the blood, bone marrow, and spleen and prevent normal cells from reproducing, leaving the body vulnerable to infection, hemorrhage and anemia. Under magnification these abnormal white blood cells appear to have hair-like projections.

Bulger's work is part of an ongoing investigation directed by John Murphy, M.D., chief of the Section of Biomolecular Medicine at UH. It was Murphy's idea to genetically link IL-2, a protein growth factor needed by some leukemia cells--such as HCL--with a portion of the deadly diphtheria-toxin molecule. The new molecule is then absorbed by HCL as if it was pure IL-2. Once inside the cell, the diphtheria toxin is able to attack and kill the cell.

Traditional treatments such as removal of the spleen, frequent injections of alpha interferon and the experimental and toxic drug pentostatin, have been fairly effective in controlling the disease. However, these treatments

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are not successful for all patients. "One or a combination of these methods can effectively treat HCL for a period of time, but they can cause side effects," says Bulger.

"The IL-2-toxin, on the other hand, has tremendous potential as a better treatment for HCL because it is toxic only to those cells carrying the IL-2 receptor and will not harm other cells, thus minimizing side effects," he adds.

The Hairy Cell Leukemia Foundation was established in 1989 by Newton resident Daniel Little and his family. Little was diagnosed with HCL almost a year ago. "We decided to start this foundation to promote scientific research, to raise public awareness of the disease and to start patient support groups," says Little. The Foundation also provides patients and their family members with newsletters and other educational materials.

The University Hospital, founded in 1855, is a teaching hospital of Boston University School of Medicine and a member of Boston University Medical Center.