



SECTION IX CHRONIC MYELOGENOUS LEUKEMIA RESEARCH PROGRAM

Vision: To perfect the existing and develop new diagnostic and therapeutic approaches for chronic myelogenous leukemia.

Mission: To sponsor basic and clinically oriented research in the field of chronic myelogenous leukemia.

Congressional Appropriations for Peer-Reviewed Research: \$5M in FY02

Funding Summary: ~5 awards anticipated from the FY02 appropriation

THE DISEASE

Chronic myelogenous leukemia (CML) is also known as chronic granulocytic leukemia or chronic myeloid leukemia. CML is an overgrowth of granulocytes, a type of white blood cell; its cause is unknown. CML accounts for about 20% of adult leukemias in Western countries. In 2002, approximately 4,400 individuals will be diagnosed with CML, and approximately 2,000 will die from the disease.¹ In most cases, CML is characterized by a chromosomal abnormality that is known as the Philadelphia chromosome. Usually, treatment consists of various chemotherapeutic agents used to disrupt the production of leukemic cells. These treatments may be followed by stem cell transplant.

PROGRAM BACKGROUND

The Department of Defense (DOD) Chronic Myelogenous Leukemia Research Program (CMLRP) was established in FY02 by Joint Appropriations Conference Committee Report No. 107-350, which provides \$5M for CML research. A stakeholders' meeting was held in April 2002 in which renowned scientists, clinicians, and consumer advocates provided input on the major issues in CML research. An Integration Panel, composed of experts in the CML field, was configured in May 2002 to determine the FY02 vision and investment strategy.

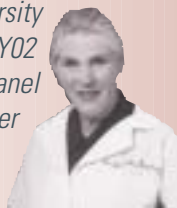
THE VISION FOR THE FY02 PROGRAM

The goal of the FY02 CMLRP is to promote research in the field of CML. One award mechanism, Investigator-Initiated Research Awards, was offered to sponsor basic and clinically oriented research in the field of CML. Innovative studies that explore novel ideas or approaches are being encouraged.

In response to the CMLRP Program Announcement, 49 proposals were received electronically. Scientific peer review will be conducted in November 2002, and programmatic review is scheduled for January 2003. Approximately 5 awards are anticipated.

"The remarkable success of Gleevec in the treatment of chronic myelogenous leukemia validates the scientific approach that scientists must first understand the biological/functional consequences of the genetic changes in malignant cells before they can hope to develop effective treatment."

—Janet Rowley, M.D., Professor of Medicine, University of Chicago, FY02 Integration Panel Member



"As a member of the CMLRP Integration Panel I feel an excitement in the chronic myelogenous leukemia research community for the potential of this nascent initiative. We have the chance to take the recent advances in molecularly targeted therapy and focus on specific scientific and therapeutic problems. This program will contribute, along with other federally and privately funded efforts (such as those of The Leukemia & Lymphoma Society) to find therapies that allow CML patients to live longer lives in general good health. Dare I say that one day, with this program and others, that our researchers and clinicians success may qualify as a cure for CML."

—Alan J. Kinniburgh, Ph.D., Vice President of Research, The Leukemia & Lymphoma Society, FY02 Integration Panel Member



SUMMARY

The CMLRP was established in FY02 with a \$5M congressional appropriation for research on CML. Projects funded by this program are anticipated to support research that will improve the diagnostic and therapeutic approaches for CML.

¹ National Cancer Institute Physician Data Query and American Cancer Society - Facts and Figures 2002.

FY02 INTEGRATION PANEL MEMBERS

Alan Gewirtz, M.D.: Professor, Internal Medicine and Pathology, University of Pennsylvania School of Medicine; and Leader, Stem Cell Biology and Therapeutic, University of Pennsylvania Cancer Center.

Alan Kinniburgh, Ph.D.: Vice President of Research Administration, The Leukemia & Lymphoma Society (formerly The Leukemia Society of America).

Stephanie Lee, M.D., M.P.H.: Assistant Professor of Medicine, Dana-Farber Cancer Institute, Harvard Medical School.

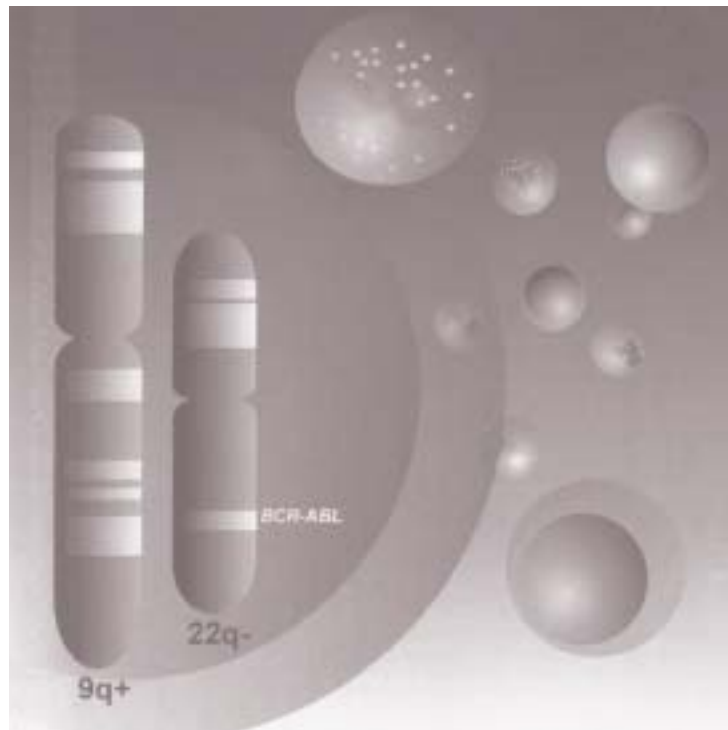
Rose McCullough, Ph.D.: Consumer, most recently served as Executive Director of the AIDS Vaccine Advocacy Coalition.

Thomas M. Roberts, Ph.D.: Chair, Department of Cancer Biology, Dana-Farber Cancer Institute; and Chair, Division of Medical Sciences at Harvard Medical School.

Janet Rowley, M.D.: Blum-Riese Distinguished Service Professor, Departments of Medicine, Molecular Genetics and Cell Biology, and Human Genetics, University of Chicago.

Anna Schwartz, Ph.D., F.N.P.: Associate Professor and Research Scientist, Oregon Health & Science University School of Nursing.

Moshe Talpaz, M.D.: Chairman, Department of Bioimmunotherapy, M.D. Anderson Cancer Center.



CML involves breakages in chromosomes 9 and 22 (the Philadelphia chromosome). The detached pieces of the chromosomes switch with each other in the blood cells of CML patients. This results in the abnormally fused gene known as BCR-ABL.