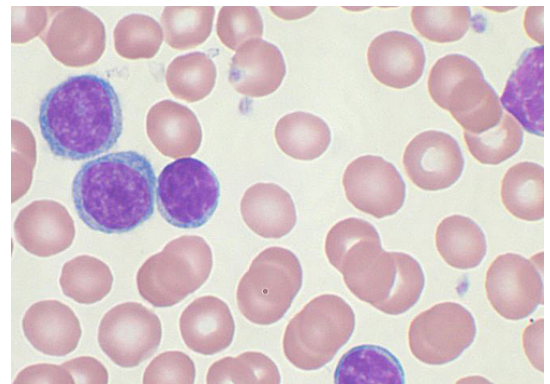


September 27, 2012 | By Scott LaFee

## UCSD-based Cancer Consortium Receives 5-Year, \$20 Million Grant Renewal

**NCI funding continues work focused on chronic lymphocytic leukemia**

An international consortium of scientists studying chronic lymphocytic leukemia (CLL), based at the University of California, San Diego School of Medicine, has been awarded a 5-year, \$20 million grant by the National Cancer Institute, part of the National Institutes of Health. The grant is the second renewal of funding for a broad-based effort designed to better understand the pathology of CLL – the most common form of leukemia in the Western world – and develop new drugs and treatments.



*Magnified blood smear showing darker CLL cells.*

“This funding allows us to continue critical research that has already produced substantial, new insights into how and why CLL develops and progresses differently in patients,” said Thomas J. Kipps, MD, PhD, professor of medicine in the UCSD School of Medicine, deputy director of research at UC San Diego Moores Cancer Center and director of the Chronic Lymphocytic Leukemia Research Consortium (CRC). “Our work has revealed new targets and approaches for both mitigating the disease and perhaps eventually preventing it.”

The CRC consists of eight diverse institutions: UC San Diego, The Sanford-Burnham Medical Research Institute, the Mayo Clinic, Ohio State University, the Dana-Farber Cancer Institute at Harvard Medical School, the University of Texas M.D. Anderson Cancer Center, the North Shore-Long Island Jewish Health System and the BARTS and London Cancer Centre in England. Under the auspices of veteran CLL scientists, researchers and doctors in the CRC have created distinct projects addressing different aspects of the disease. Among them:

- The genetic basis for CLL and how genes change as the disease progresses

- The resistance of CLL cells to apoptosis or programmed cell death, a trait that makes them less susceptible to chemotherapy
- The potential of immunotherapy – using the body’s natural immune system to reject cancer – to halt and reverse CLL
- Repairing defective immune cells to maximize immunological response to mutations
- Development of new anticancer agents that either inhibit development of CLL or render the surrounding microenvironment inhospitable to cancer cells

CLL is a particularly confounding challenge. It is a blood cancer characterized by the accumulation of abnormal, dysfunctional lymphocytes (a type of white blood cell) in the blood and bone marrow. As these lymphocytes swell in number, they interfere with normal body functions, including disabling of the immune system.

Prevalence of CLL in the United States is high: 1 in 20 people over the age of 40 may have apparently pre-cancerous CLL-like cells in their blood. These people may develop actual CLL at a rate of about 1 percent per year. More than 15,000 new cases of CLL are diagnosed each year in the United States. Roughly 4,400 patients with CLL die annually.

The condition is most often diagnosed in elderly patients, usually from a standard blood test. The course of the disease can vary dramatically with each individual. In some patients, CLL develops very slowly with no obvious symptoms for many years. In others, it is much more rapid, requiring quicker medical intervention.

Currently, there is no cure and existing treatments frequently involve adverse, even life-threatening, side effects, prompting doctors to often delay aggressive treatment until absolutely necessary.

Though a blood cancer, Kipps said CLL research may have implications for understanding and treating of solid tumor cancers, such as breast and ovary. For example, researchers have found that tumor suppressor genes in CLL appear to play a similar role in solid tumor cancers. Also, CLL does not require access to often hard-to-reach tumors. It can be studied with a simple blood draw, over time in the same patient. The lessons learned may have broader application.

“For more than a decade, the CRC has brought together scientists and institutions to focus completely on CLL, people and places that might otherwise not be able to collaborate,” Kipps said. “In that time, we’ve made real advances, both at the bench and at the bedside. We’ve got a long way to go. CLL is a tough disease. But this grant means we’ll be able to continue pushing forward.”

The NCI grant runs through August 2017, and totals \$19,527,174.

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