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UC San Diego Researcher Receives \$6.25 Million Grant

Thomas Kipps One of Four Recipients of Leukemia & Lymphoma Society Award

The Leukemia & Lymphoma Society has awarded Thomas J. Kipps, MD, PhD, Distinguished Professor of Medicine at the University of California, San Diego School of Medicine, with a 5-year, \$6.25 million Specialized Center of Research program grant to support research on chronic lymphocytic leukemia (CLL), the most common adult leukemia in the United States.



Thomas Kipps, MD, PhD

Kipps, the Evelyn and Edwin Tasch Chair in Cancer Research and UC San Diego Moores Cancer Center deputy director for research, is a recipient of The Leukemia & Lymphoma Society's grant for the "Specific Targets for Therapy of Patients with Chronic Lymphocytic Leukemia," a four-part project. After nearly three decades of investigating and treating CLL, Kipps is considered among the nation's leading experts in the disease. According to the National Cancer Institute, 1 in 192 people will be diagnosed with CLL during their lifetime.

"Although the research proposal is directed toward improving therapy for patients with CLL, the research may impact other leukemias, lymphomas and cancers in general," said Kipps. "The Leukemia & Lymphoma Society's Specialized Center of Research grant plays an important part in moving this research forward."

CLL is a cancer of the blood and bone marrow, characterized by the growth of abnormal white blood cells that ultimately crowd out healthy cells. Treating this slow-growing cancer is challenging because malignant cells are resistant to drugs used to treat other leukemias. Past

research has been unable to uncover a common mutation; instead, alterations in CLL occur through different survival pathways.

Kipps and colleagues reported that a protein used by embryo cells during early development, called Receptor-tyrosine-kinase-like Orphan Receptor 1 or ROR1, serves as a switch regulating the spread of cancer, known as metastasis.

The Leukemia & Lymphoma Society grant will permit Kipps to advance the development of potential new therapies that would target identified pathways that support leukemia-cell survival such as ROR1 (Project 1). Because the activation or silencing of one pathway could lead to the expression of another, William Wierda, MD, PhD, of the University of Texas MD Anderson Cancer Center, will take the findings and implement a phase I clinical trial (Project 2).

Dennis Carson, MD, UC San Diego emeritus professor of medicine, will investigate the suppression of Wnt-signaling, which can stimulate leukemia-cell growth, and the ability to sensitize these cells to agents currently in clinical trials at UC San Diego (Project 3). And Michael Karin, PhD, UC San Diego School of Medicine, Distinguished Professor of Pharmacology and Pathology, will examine the regulation of signaling and regulatory molecules IKKbeta, NF-KappaB, JAK2 and STAT3 in CLL cells (Project 4).

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