NIH NATIONAL CANCER INSTITUTE

DIFFUSE LARGE B CELL LYMPHOMA THERAPEUTIC

SUMMARY

The National Cancer Institute seeks partners interested in collaborative research to co-develop therapeutics for lymphoma and autoimmune diseases.

REFERENCE NUMBER

E-035-2013

PRODUCT TYPE

- Therapeutics

KEYWORDS

- B cell
- lymphoma
- diffuse large B cell lymphoma

COLLABORATION OPPORTUNITY

This invention is available for licensing.

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DESCRIPTION OF TECHNOLOGY

Diffuse large B-cell lymphoma (DLBCL) is the most common lymphoid malignancy and accounts for the majority of aggressive non-Hodgkin lymphoma cases in the US. While it is a curable disease with significant success from rituximab and CHOP chemotherapeutic treatment, a significant minority of patients with advanced stage disease and clinical risk factors are in need of alternative treatment strategies.

Scientists at NCI's Lymphoid Malignancies Branch, have developed a novel stapled-peptide that specifically targets the linear polyubiquitin chain assembly complex (LUBAC), a pathway involved in NF-□B activation via binding of two protein molecules, RNF31 and RBCK1. The investigators have genetic, biochemical and functional evidence showing that the These cell-permeable peptides compete against endogenous RNF31, therefore inhibit the NF-kB induction pathway and kill the malignant cells.

POTENTIAL COMMERCIAL APPLICATIONS

- Targeted therapies for ABC DLBCL.
- Combination cytotoxic chemotherapies for ABC DLBCL.
- Treatment for other cancers or autoimmune/inflammatory diseases that depend upon the function of RNF31 and RBCK1 combination.

COMPETITIVE ADVANTAGES

- Novel composition of inhibitors for advance stage ABC DLBCL, Effective therapies targeting at NF-kB pathway, Novel therapeutic for ABC DLBCL not responsive to rituximab and CHOP chemotherapy.

INVENTOR(S)

- Louis M. Staudt (NCI), Yibin Yang (NCI), Federico Bernal (NCI)

DEVELOPMENT STAGE

- Discovery (Lead Identification)

PUBLICATIONS

Yang, Y., et al. PMID: 24491438

PATENT STATUS

- **U.S. Filed:** US Provisional Application No. 61/789,064 filed 15 March 2013

THERAPEUTIC AREA

- Cancer/Neoplasm
- Immune System and Inflammation