

**POSTER PRESENTATION**

**Open Access**

# Targeting cyclin D1 for mantle cell lymphoma

Jingtao Chen

From 30th Annual Meeting and Associated Programs of the Society for Immunotherapy of Cancer (SITC 2015) National Harbor, MD, USA. 4-8 November 2015

Cyclin D1, an important component of cell cycle and a protein with known oncogenic potential, is over expressed in mantle cell lymphoma (MCL). MCL is a distinct clinical pathologic subtype of B cell non-Hodgkin's lymphoma often associated with poor prognosis. New therapeutic approaches based on boosting anti-tumor immunity are being developed. Targeting cyclin D1 for MCL is rendering an interesting target for immunotherapy. However, the knowledge on the frequency and profile of cyclin D1-specific T cells in MCL patients is fragmented. Here we show that both healthy individuals and MCL patients have a broad repertoire of cyclin D1-specific CD4<sup>+</sup> and CD8<sup>+</sup> T cells covering numerous epitopes from the whole cyclin D1 protein. Cyclin D1-specific T cells secrete IFN- $\gamma$  and type 2 cytokines including IL-5 and IL-13. Additionally, DCs loaded with whole tumor cells or with selected peptides can elicit cyclin D1-specific CD8<sup>+</sup> T cells that kill MCL tumors. Furthermore, a recombinant vaccine based on targeting cyclin D1 antigen to human DCs via an anti-CD40 mAb was developed. Targeting monocyte-derived human DCs in vitro with anti-CD40-cyclin D1 fusion protein expanded a broad repertoire of cyclin D1-specific CD4<sup>+</sup> and CD8<sup>+</sup> T cells. Therefore, cyclin D1 represents a good target for immunotherapy.

Published: 4 November 2015

doi:10.1186/2051-1426-3-S2-P430

**Cite this article as:** Chen: Targeting cyclin D1 for mantle cell lymphoma. *Journal for ImmunoTherapy of Cancer* 2015 **3**(Suppl 2):P430.

**Submit your next manuscript to BioMed Central  
and take full advantage of:**

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at  
[www.biomedcentral.com/submit](http://www.biomedcentral.com/submit)



Institute of Translational Medicine, The First Hospital, Jilin University,  
Changchun, Jilin, China



© 2015 Chen This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated.