LymphomaHub

MCL

AACR 2017 | Poster 4051/21 – Combination efficacy of vorinostat (HDAC inhibitor) and palbociclib (CDK-4/6 dual inhibitor) against therapy-resistant Mantle Cell Lymphoma

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At the American Association for Cancer Research (AACR) annual meeting in Washington, DC, USA, on Tuesday 4th April, a poster session titled "Combination Therapies and Approaches to Sensitize Cancer Cells to Drugs" took place.

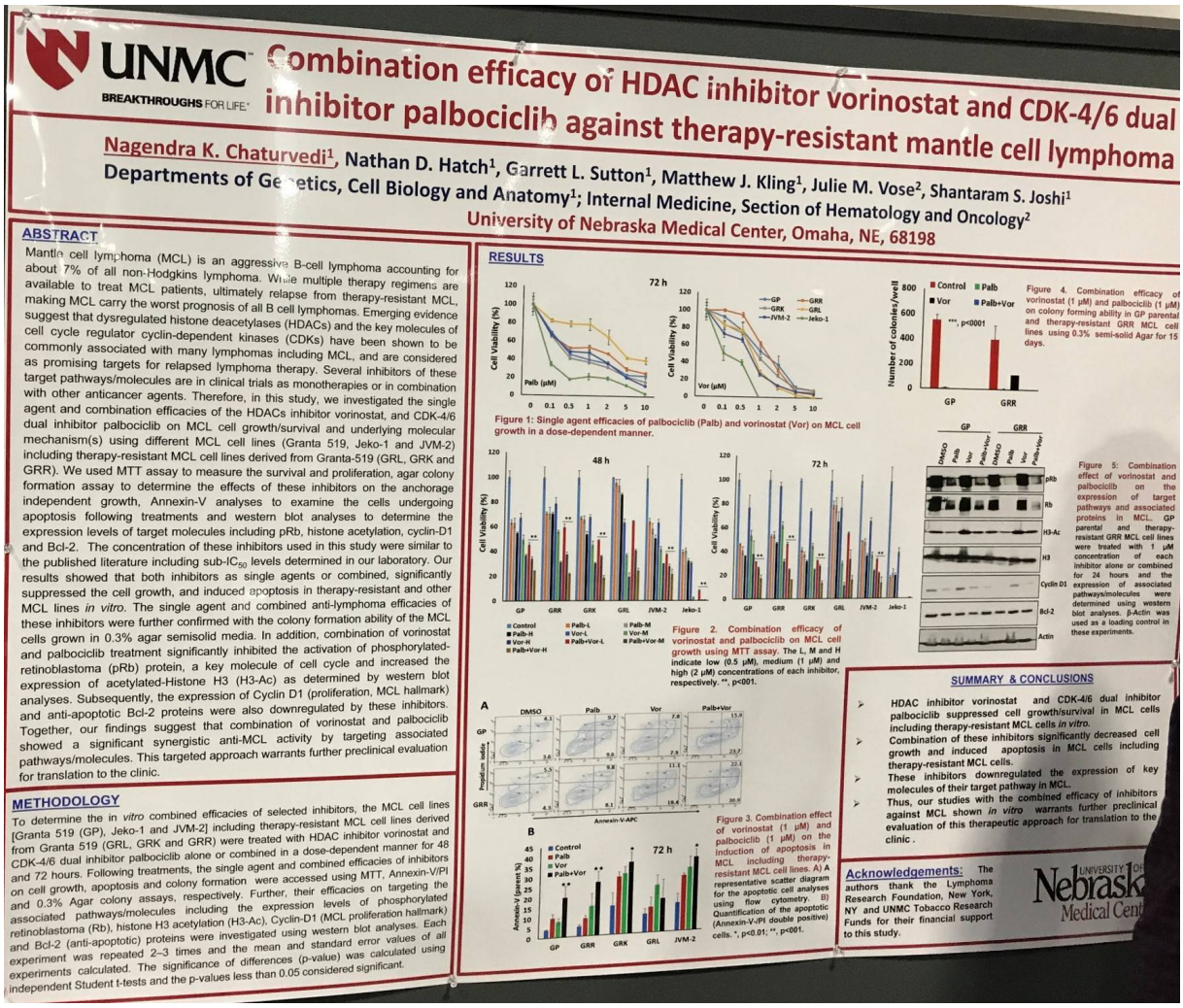
One of the posters on display (4051 / 21) was titled "Combination efficacy of HDAC inhibitor vorinostat and CDK-4/6 dual inhibitor palbociclib against therapy-resistant mantle cell lymphoma" by Nagendra K. Chaturvedi from the University of Nebraska Medical Center, Omaha, NE, and colleagues.

This group analyzed the efficacy of vorinostat as a single agent and in combination with palbociclib on MCL cell growth, survival, and underlying molecular mechanism(s) using different cell lines (Granta 519, Jeko-1, and JVM-2). Therapy-resistant MCL cell lines were also used, derived from Granta-519 (GRL, GRK, and GRR).

Key Highlights:

- Both vorinostat and palbociclib, as single agents or combined, significantly suppressed cell growth and induced apoptosis in therapy-resistant and other MCL lines
- Combining vorinostat and palbociclib significantly inhibited the activation of phosphorylated-retinoblastoma protein (a key component of cell cycle regulation) and increased expression of acetylated-Histone H3
- Expression of Cyclin D1 and Bcl-2 proteins were downregulated by these inhibitors

The poster concluded by stating that these results indicate that combination of vorinostat and palbociclib demonstrated significant synergistic activity in MCL by targeting associated pathways/molecules. The authors stressed that this combination should be evaluated in further preclinical studies in order for translation to the clinic.



Reference:

1. Chaturvedi N.K. *et al.* Combination efficacy of HDAC inhibitor vorinostat and CDK-4/6 dual inhibitor palbociclib against therapy-resistant mantle cell lymphoma [Poster]. In: Proceedings of the 107th Annual Meeting of the American Association for Cancer Research; 2017 Apr 1-5; Washington, DC. Philadelphia (PA): AACR; 2017. Poster nr [4051 / 21].