Researchers identify promising therapeutic agent against melanoma
1 February 2021

Melanoma in skin biopsy with H&E stain — this case may represent superficial spreading melanoma. Credit: Wikipedia/CC BY-SA 3.0

There have been great advances in treating melanoma over the past five years, however, even with these treatments many patients quickly develop drug resistance and die from their disease. A new study from Boston University School of Medicine (BUSM) has discovered that a drug (YK-4-279) that was previously created to target one specific type of protein has much broader use against a family of proteins that act to promote melanoma.

"We find that this drug inhibited melanoma from becoming more aggressive in human cells and in experimental models. We also found a specific pathway that this drug acts through to be anti-cancer: inhibiting proteins that drive genes that promote cancer cell growth and metastasis," explained corresponding author Deborah Lang, Ph.D., associate professor of dermatology at BUSM.

According to the researchers these findings create the opportunity for YK-4-279 to be an option for melanoma treatments, either singularly or in combination with other available therapeutics. "We find that this molecule disrupts the interaction of two factors known to regulate melanocytes and promote melanoma through gene regulation. This work may impact other systems where these factors play a role, such as in the nervous system and in pigmentary disorders."


Provided by Boston University School of Medicine