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Title of presentation: The role of alternative splicing in cancer

Abstract

Human DNA contains functional units called genes, which are critical for the survival and the normal biology of every cell in our body. While there are only approximately 20,000 genes, any human cell can have up to 500,000 different products of those genes! Some of this discrepancy comes from a mechanism called alternative splicing, which changes how gene products are assembled. In some cases, such as cancer, this process is dysregulated, which will affect the way cancer cells behave in the body and how they respond to treatment. In mantle cell lymphoma, a rare form of blood cancer, we found cancer-related mistakes (mutations) in the DNA that affect the way one specific gene product is assembled. We hypothesize that these mutations disrupt the amount of this gene product in the cancer cells and ultimately affect the survival of patients with this cancer.