



ALDH1 can be use both, as a diagnostic tool and as a therapeutic target.

ALDH1A3 isoform is highly expressed in malignant melanomas and in hiperproliferative lesions while it is absent in normal melanocytes. We found that the isoenzyme distribution changes during evolution of the disease, having a nuclear pattern in Nevus , a strong cytoplasmatic pattern as the lession progress to a skin superficial melanoma (SSM) and a low presence of the protein in melanoma cells residing in metastatic lymph nodes (LNM). Specific targeting of ALDH1 causes cancer cell death *in vitro* and tumor shrinkage *in vivo* xenografts mice models.

