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### 143 | CD271 is expressed in melanoma with more aggressive behavior with correlation of characteristic morphology in in vivo reflectance confocal microscopy.

Beretti F, Manni P, Longo C, Argenziano G, Farnetani F, Cesinaro AM, Witkowski AM, De Pol A, Pellacani G.; *Br J Dermatol.* 2014 Jul 26. doi: 10.1111/bjd.13301.

#### ABSTRACT

**BACKGROUND:** Melanoma is the most highly aggressive type of skin cancer. The resistance to existing treatments and the rapid rise in its incidence underscore the importance of acquiring a better understanding of melanomagenesis. **OBJECTIVES:** To assess the impact of reflectance confocal microscopy (RCM) on the description of cell morphology, that may influence the growth pattern and changes with increasing tumor seriousness, correlating with biological aspects. **METHODS:** Retrospective analysis of 30 primary melanomas in vivo, evaluated by RCM, to correlate cell morphology and cellular arrangement with marker of melanoma progression using immunohistochemical evaluations.

**RESULTS:** Our results describe that typical cells organized in dermal nests with peculiar in vivo confocal morphology drive to a melanoma with high malignancy and positive to CD271. This architecture might be due to the presence of a type of cells, intrinsically predisposed to invasion, as a result of dedifferentiation program, revealed by the expression of neural crest marker CD271.

**CONCLUSION:** In the hypothesis that dedifferentiated cells would be strongly responsible for initiation of tumor development and progression, we propose that CD271 detection could be associated with RCM evaluation in order to detect more aggressive melanoma subtypes.