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A Novel Fully Humanized 3D Skin Equivalent to Model Early Melanoma Invasion

Early-stage cutaneous melanoma development is characterized by uncontrolled proliferation and invasion of melanoma cells from the epidermis into the dermis through the basement membrane. This process is modeled using a novel full-thickness human melanoma skin equivalent in which melanoma cells form nests at the epidermal/dermal junction, as seen in this image, the basement membrane component type IV collagen, before disrupting the basement membrane structure as they invade at later time points. For full details of this model and its use for the investigation of early melanoma invasion, see the article by Hill and colleagues on page 2665.