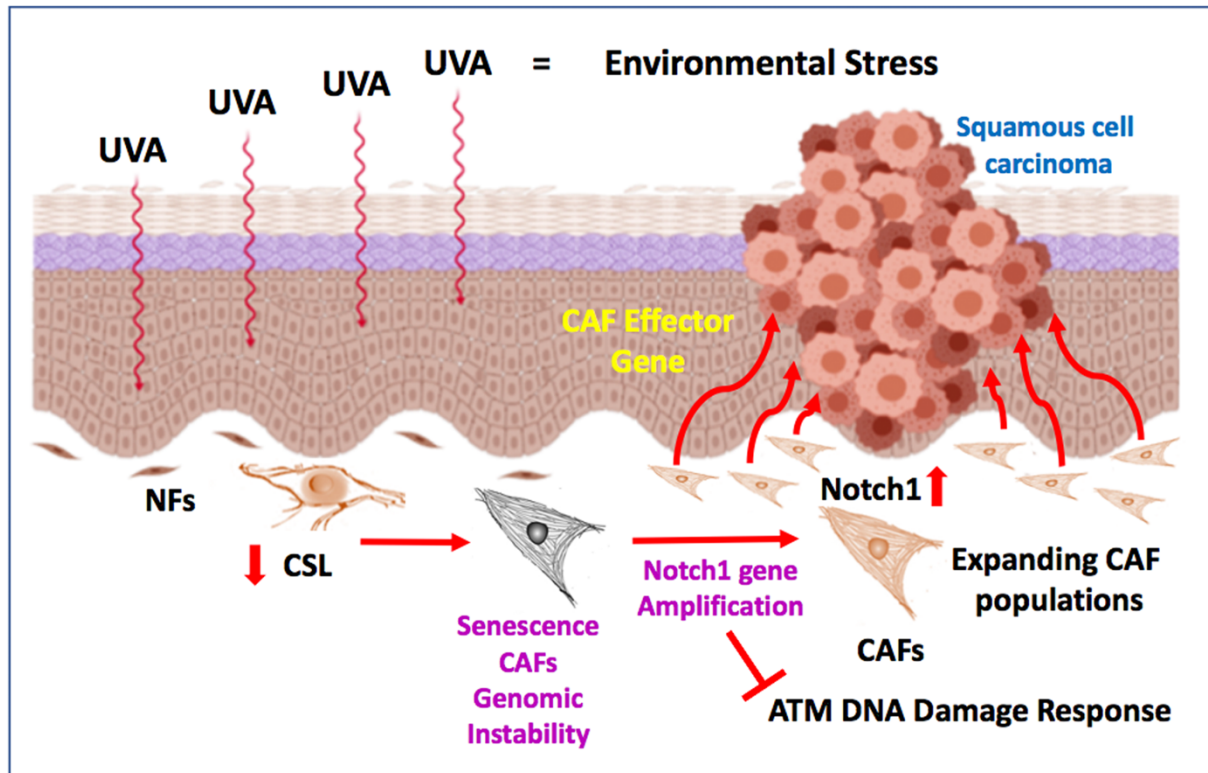


NOTCH1 gene amplification promotes expansion of Cancer Associated Fibroblast populations in human skin

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We have been focusing on the interconnection between skin aging and development of skin “cancer fields”, i.e. multiple and recurrent cancer lesions linked with chronic sun exposure and patients’ immune suppression. Our findings point to the existence of stromal cells genetic alterations with potential therapeutic implications.



- Genomic instability of CAFs results in selective expansion of subpopulation with NOTCH1 gene amplification.
- NOTCH1 amplification and increase expression blocks genomic instability induced growth arrest.
- NOTCH1 genetic or pharmacological inhibition of NOTCH1 activity suppresses cancer/stromal cells expansion.