A major challenge for melanoma treatment is to develop new strategies to obtain long lasting regression of tumors, but melanoma heterogeneity and complex etiology poses a challenge to single therapy approaches. The emerging hypothesis is that melanoma could be effectively eradicated thorough a combination therapy targeting both the bulk of cancer cells and the melanoma subpopulation that is responsible for tumor maintenance. Moreover, new potential treatment approach is to target the tumor microenvironment niche that supports residual tumor subpopulations. Thus, my scientific interest is to dissect the mechanisms of intrinsic resistance of melanoma subpopulations to targeted therapies and to elucidate the role of different component of the tumor microenvironment in modulating melanoma plasticity and susceptibility to drug exposure, thus leading to indentifying key factors in sustaining melanoma recurrence.

**Bibliography**

