Investigation of the role of regulatory RNAs in skin cancer

Non-coding RNAs have important regulatory functions in virtually all biological processes. My group studies the role of non-coding RNAs (microRNAs and long non-coding RNAs) in the most common human malignancy, skin cancer. Melanoma and non-melanoma skin cancers have an increasing incidence worldwide and there is a need for developing new therapeutic approaches and biomarkers. My research team aims to investigate the involvement of non-coding RNAs in skin carcinogenesis, by identifying alterations in the activity of miRNA and lncRNA genes in patient samples and by systematic investigation of their function using in vitro and in vivo disease models. Our long-term goal is to translate our findings into the clinical practice and modulate miRNA expression in the skin via synthetic miRNAs or miRNA inhibitors in order to treat skin cancer.