

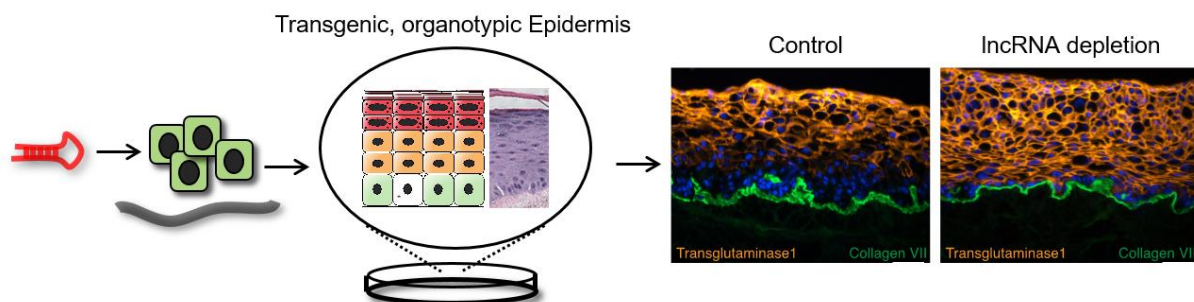
The research group of Dr. Markus Kretz accepts applications for a

Master thesis in Molecular Biology / Biochemistry

Project background:

Long non-coding RNAs (lncRNAs) have emerged as key regulators of gene expression in many cellular pathways and are involved in a multitude of different diseases including many types of cancer. We are interested in understanding how lncRNAs help controlling skin homeostasis and skin cancer development. For this purpose, we analyze the functional impact and modes of action of lncRNAs and associated proteins on regulation of epidermal homeostasis in normal and neoplastic human primary cells and organotypic tissue.

The Master thesis will focus on analyzing the modes of action of a long non-coding RNA and an associated epigenetic regulator complex involved in regulating human skin homeostasis. The successful candidate will learn a variety of methods including generation of transgenic, organotypic human epidermis, RNA pull-down analyses, chromatin immunoprecipitation followed by DNA sequencing, transcriptome sequencing analysis and CRISPR/Cas9-mediated perturbation of gene expression.



If you are a master student of Biology, Biochemistry or Molecular Medicine and are interested in participating in the above project, you are welcome to **contact Dr. Markus Kretz for more information about the Master thesis:**

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