

“Ubiquitin-Mediated Regulation of Damage Recognition in Nucleotide Excision Repair”

1. Their swift induction, reversibility and ability to regulate stability, activity and binding of other proteins make PTMs a very suitable regulator ‘of complex biological processes’. (This thesis and others)
2. The DNA damage recognition steps of NER are highly regulated by post translational modifications. (This thesis)
3. RNF111-mediated ubiquitylation stimulates the release of XPC, which is required for efficient progression of the NER reaction. (This thesis)
4. A bimodal switch that controls stable binding of XPC to DNA damage, allows cells to prioritize repair of lesions in actively transcribed genes under mild genotoxic stress. (This thesis)
5. RPA is an intrinsically highly dynamic ssDNA-binding complex in replication and the pre- and post-incision steps of NER. (This thesis)
6. Regulation of DNA repair mechanisms is probably as important as having them.
7. Generation of large omics data sets is not rate limiting, but their validation and functional analysis are.
8. Tumor heterogeneity is one of the greatest challenges for cancer therapy.
9. Over 30% of cancer could be prevented, mainly by not using tobacco, having a healthy diet, being physically active and moderating the use of alcohol (World Health Organization).
10. Archiving or publishing ‘negative results’ would prevent unnecessary repetition of research. ‘Knowledge that has not been documented is knowledge that does not exist’.
11. Science is about never growing up. You just have to keep asking why and using your imagination.