

Stellingen

Behorend bij het proefschrift:

Ubiquitination in the UV-induced DNA Damage Response

from proteomics to patient

1. Ubiquitin-mediated regulation of the cellular response to UV-induced stress extends well beyond controlling NER.
This thesis
2. Mass spectrometry-based study of ubiquitin-mediated signalling is best achieved by combining results obtained by methods that enrich for ubiquitinated protein complexes and that enrich for ubiquitinated peptides.
This thesis & Xu, et al. (2010); Kim, et al (2011); Wagner, et al. (2011); Udeshi, et al. (2012); Povlsen, et al. (2012)
3. UVSSA provides substrate specificity to the pleiotropic deubiquitinating enzyme USP7 to counteract UV-induced CSB ubiquitination.
This thesis
4. A key aspect contributing to the wide variety in TCR-deficient patient phenotypes is most likely the differential processing of RNA Pol II when encountering DNA lesions.
This thesis
5. For a better understanding of the phenotypical differences between UV^sS and CS patients, dedicated lesion-specific repair assays are necessary to unravel the contribution of UVSSA and other TCR proteins to the repair of lesions by NER and other repair mechanisms.
This thesis
6. Given the many combinational options and functional consequences of ubiquitination, it is the most versatile PTM.
7. The relative ease of performing large-scale proteomic MS screens nowadays generates ever-increasing volumes of proteomic data. However, the field would benefit from a concomitant increase in bioinformatical approaches to efficiently use these data for more than only cherry picking.
8. The high pheomelanin-to-eumelanin ratio in 'red hair/fair skin' individuals indicates an increased risk of melanoma. However, in addition to offering poor protection from environmental carcinogens (such as UV-light), the pheomelanin synthesis itself also conveys intrinsic carcinogenic features.
Nature. 2012 Nov 15;491(7424):449-53.
9. To increase transparency of the peer-review process for scientific publications, in both open-access and subscription-based journals, reviewer comments should be made publicly available.
Inspired by the Bohannon's sting (Science. 2013 Oct 4;342(6154):60-5)
10. Progress is better than perfection
11. Every scientist should keep in mind some wisdom from Groningen when experiments fail: "Noit soezen, deurbroezen"