

Supplementary Figure and Table legends

Impact of Infrared Radiation on UVB-induced Skin Tumourigenesis in Wild Type C57BL/6 Mice

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Supplementary Figure 1

(A) Kaplan-Meier-Curve of lesion-free survival of mice exposed to UVB (blue), IRA+UVB (yellow) and IRA (red), and unexposed controls (green); UVB vs. IRA+UVB: $p=0.6741$. Inset represents the average number + SD of lesions per mouse that developed in the two UVB-exposed groups; $p=0.6385$. (B) Expected cumulative number of lesions developing in mice exposed to UVB (blue) and IRA+UVB (yellow) as estimated by the Nelson-Aalen estimator; $p=0.4400$.

Supplementary Figure 2

Tumour occurrences for each mouse (A) exposed to IRA+UVB and (B) exposed to UVB. Non-epithelial malignant tumours are marked with an x, other types of tumours are marked with black boxes.

Supplementary Figure 3

Representative H&E images of benign lesions. (A,D) Representative pictures of a fibroma. (B,E) Representative pictures of a papilloma. (C,F) Representative pictures of a cyst. Scale bars represent 1,000 μm for overview screen (A-C) and 100 μm for detail screen (D-F).

Supplementary Figure 4

Differentiation states of SCC. (A,D) H&E staining of a representative well differentiated SCC, showing horn pearls and hornification. (B,E) H&E staining of a representative moderately differentiated SCC. (C,F) H&E staining of a representative poorly differentiated SCC, cells lose epithelial phenotype and become spindle-shaped. Scale bars represent 1,000 μm for overview screen (A-C) and 100 μm for detail screen (D-F).

Supplementary Figure 5

(A) Kaplan-Meier-Curve of proliferative epithelial lesion-free survival of mice exposed to UVB and IRA+UVB. Solid, pink line represents female animals, dashed, turquoise line represents male animals; 0.1007. (B) Kaplan-Meier-Curve of proliferative epithelial malignant lesion-free (=SCC-free) survival of mice exposed to UVB and IRA+UVB. Solid, pink line represents female animals, dashed, turquoise line represents male animals; $p=0.2934$.

Supplementary Table 1

Criteria for assessment of physical and mental health of C57BL/6 N mice.