

SUPPLEMENTARY INFORMATION

Table S1

List of 10 genes known as being radiation-responsive in blood and selected for this study, with their symbol and biological processes.

Supplementary Figure S1

CLPA gene expression profile from ex-vivo irradiated blood samples. Whole blood samples were collected from 5 volunteers and irradiated at the doses indicated and analyzed with the CLPA assay. The transcript level of BAX (A), BBC3 (B), CEBPB (C), CDKN1A (D), DDB2 (E), DEDD (F), H2AFV (G), HIST1H3D (H), MDM2 (I) and TRIB2 (J) genes normalized to the geometric mean of three housekeeping genes (MRPS5, MRPS18, CDR2) was measured at 24-hour post-exposure. Values represent mean \pm SEM. * $p < 0.05$ by paired Student's t-test.

Supplementary Figure S2

Spearman's rank correlation between expression levels of BAX (A), BBC3 (B), CDKN1A (C), DDB2 (D) and MDM2 (E) in whole blood, as represented by normalized intensity values, and the ex-vivo radiation dose.

Supplementary Figure S3

Saliva gene expression profile for each eight head and neck cancer patients. Saliva samples were collected before the start of RT (PreT), at mid-treatment (MidT) and at the end of RT (EndT) and

analyzed with the CLPA assay. The transcript level of the five genes was normalized to the geometric mean of three housekeeping genes (MRPS5, MRPS18, CDR2).

Supplementary Figure S4

Spearman's rank correlation between expression levels of MDM2 in saliva, as represented by normalized intensity values, and the total radiation dose received during RT.

Table S1

Symbol	Name	Biological processes
BAX	Apoptosis regulator BAX	apoptosis
BBC3	BCL2 binding component 3	apoptosis
CEBPB	CCAAT/enhancer binding protein beta	transcription regulation
CDKN1A	cyclin dependent kinase inhibitor 1A	cell cycle
DEDD	death effector domain containing	apoptosis, transcription regulation
DDB2	damage specific DNA binding protein 2	DNA damage / DNA repair
H2AFV	H2A histone family member V	chromatin silencing
HIST1H3D	histone cluster 1, H3d	chromatin silencing
MDMX	MDM2/4	p53 regulation
TRIB2	tribbles pseudokinase 2	protein kinase inhibitor

Fig. S1

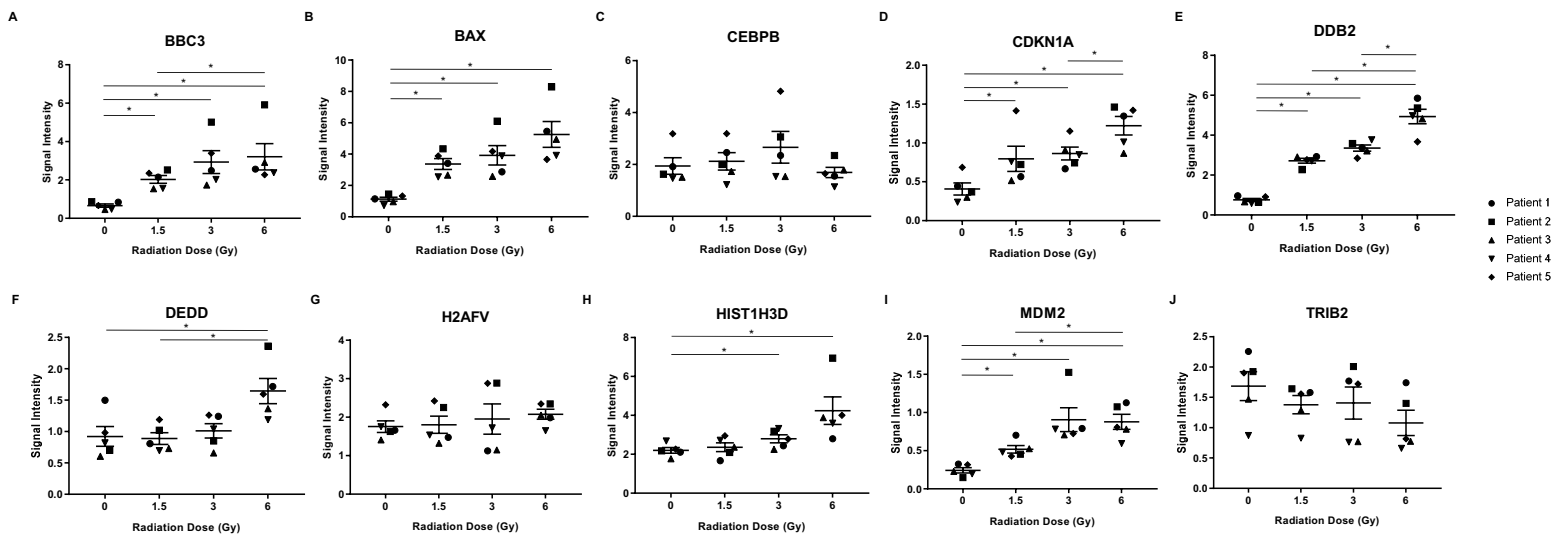


Fig. S2

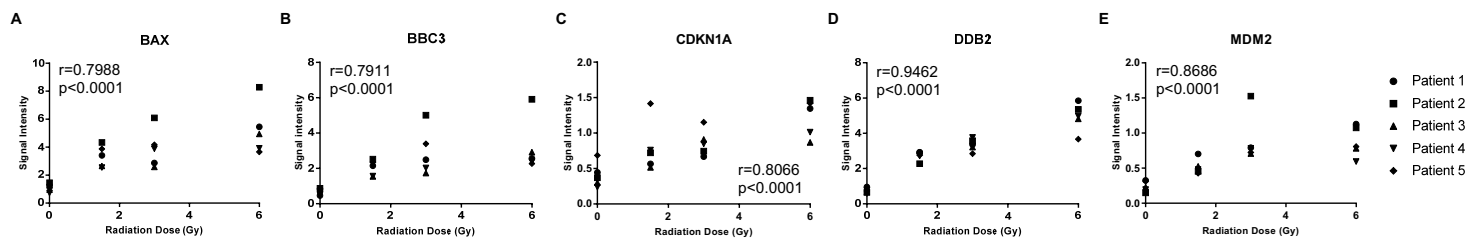


Fig. S3

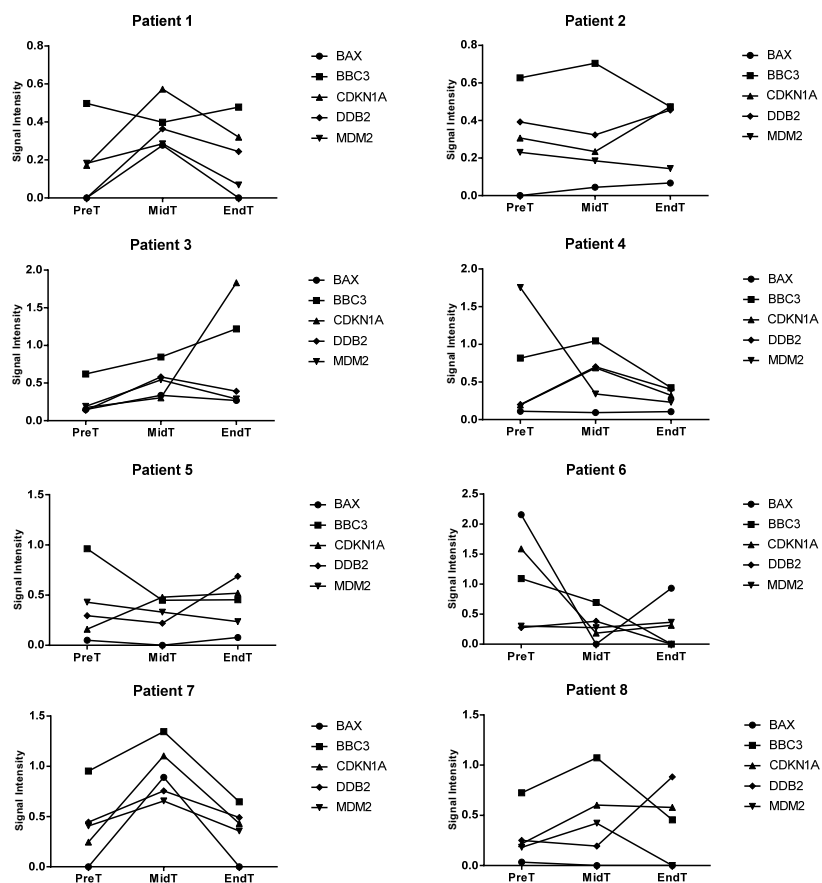


Fig. S4

