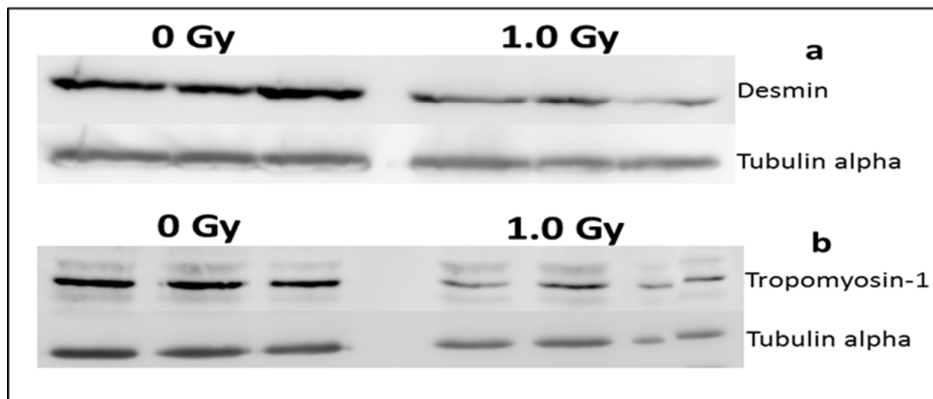
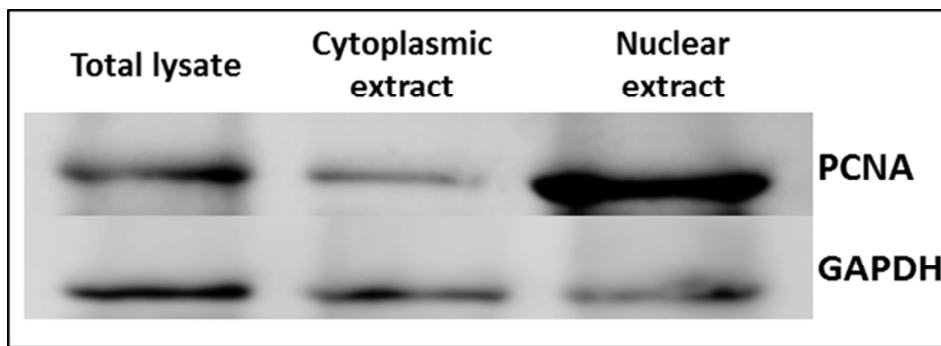


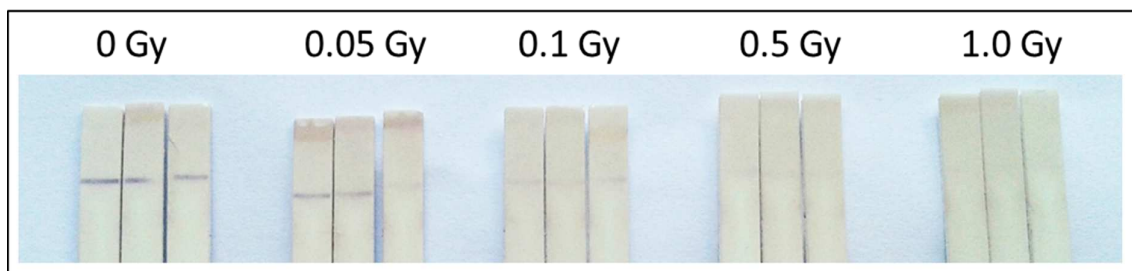
Supplementary Figures



Supplementary Figure S1: Immunoblotting images of different proteins expressed after a dose of 1.0 Gy. Three biological replicates were used to quantify the blots (Post-natal day 11).



Supplementary Figure S2: Immunoblotting image showing enrichment of nuclear fraction from irradiated liver tissue.



Supplementary Figure S3: Dip-stick assay showing relative abundance of Pyruvate dehydrogenase in control, 0.05, 0.1, 0.5 and 1.0 Gy irradiated livers (Post-natal day 11).

Supplementary Figure S4: STRING protein networks showing comparison between different classes of proteins significantly deregulated at the dose of 1.0 Gy at PND 11 and 7 months post irradiation time points. Proteins belonging to network “Translation processes” were found to be commonly affected at early and late time point

Supplementary Figure S5: IPA summary analysis of 0.05 Gy early (PND11) liver analysis



Supplementary Figure S6: IPA summary analysis of 0.1 Gy early (PND11) liver analysis



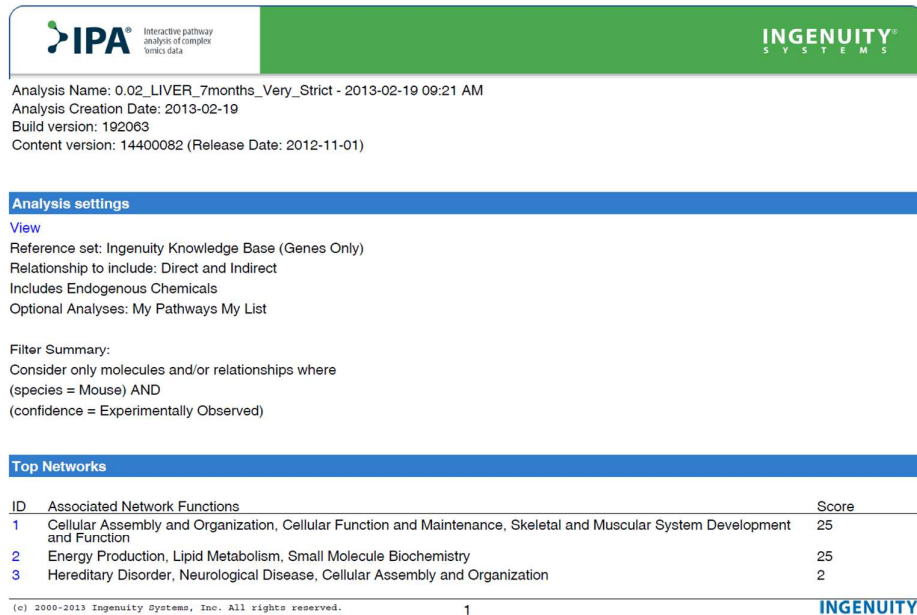
Supplementary Figure S7: IPA summary analysis of 0.5 Gy early (PND11) liver analysis



Supplementary Figure S8: IPA summary analysis of 1.0 Gy early (PND11) liver analysis



Supplementary Figure S9: IPA summary analysis of 0.02 Gy long-term liver analysis



Supplementary Figure S10: IPA summary analysis of 0.1 Gy long-term liver analysis



Supplementary Figure S11: IPA summary analysis of 0.5 Gy long-term liver analysis

Summary of Analysis - NMRI Liver long term re analysis 0.5 Gy - 2014-03-10 11:16 AM

Top Canonical Pathways

Name	p-value	Ratio
Acute Phase Response Signaling	5.3E-08	8/163 (0.049)
LXR/RXR Activation	1.76E-06	6/114 (0.063)
Coagulation System	5.31E-06	4/35 (0.114)
Heme Biosynthesis II	3.85E-04	2/9 (0.222)
Extrinsic Prothrombin Activation Pathway	1.27E-03	2/16 (0.125)

Top Regulator Effect Networks

Top Networks

ID	Associated Network Functions	Score
1	Inflammatory Response, Energy Production, Lipid Metabolism	24
2	Organismal Injury and Abnormalities, Renal and Urological Disease, Cellular Movement	22
3	Energy Production, Lipid Metabolism, Small Molecule Biochemistry	22
4	Lipid Metabolism, Molecular Transport, Small Molecule Biochemistry	8
5	Amino Acid Metabolism, Post-Translational Modification, Small Molecule Biochemistry	2

(c) 2000-2014 Ingenuity Systems, Inc. All rights reserved.

2

INGENUITY
SYSTEMS

Supplementary Figure S12: IPA summary analysis of 1.0 Gy long-term liver analysis

Summary of Analysis - NMRI Liver long term re analysis 1.0 Gy - 2014-03-10 11:13 AM

Top Canonical Pathways

Name	p-value	Ratio
Acute Phase Response Signaling	1.08E-07	8/163 (0.049)
Coagulation System	1.59E-07	5/35 (0.143)
Extrinsic Prothrombin Activation Pathway	2.47E-05	3/16 (0.188)
LXR/RXR Activation	5.1E-05	5/114 (0.044)
Intrinsic Prothrombin Activation Pathway	1.25E-04	3/32 (0.094)

Top Regulator Effect Networks

Top Networks

ID	Associated Network Functions	Score
1	Organismal Injury and Abnormalities, Respiratory Disease, Inflammatory Disease	28
2	Lipid Metabolism, Molecular Transport, Small Molecule Biochemistry	24
3	Free Radical Scavenging, Molecular Transport, Lipid Metabolism	21
4	Cell Death and Survival, Cellular Growth and Proliferation, Gene Expression	9
5	Cell Cycle, Cell Death and Survival, Cellular Assembly and Organization	2

Top Tox Lists

Name	p-value	Ratio
------	---------	-------

(c) 2000-2014 Ingenuity Systems, Inc. All rights reserved.

2

INGENUITY
SYSTEMS