

## Supplementary information

### Low doses of ionizing radiation enhance angiogenesis and consequently accelerate post-embryonic development but not regeneration in zebrafish

Filipa G. Marques<sup>1</sup>, Lara Carvalho<sup>2†</sup>, Joana S. Sousa<sup>1†</sup>, José Rino<sup>2</sup>, Isabel Diegues<sup>3</sup>, Esmeralda Poli<sup>3</sup>, Filomena Pina<sup>3</sup>, Leonor Saúde<sup>2</sup>, Susana Constantino Rosa Santos<sup>1\*</sup>

<sup>1</sup>Centro Cardiovascular da Universidade de Lisboa, Faculdade de Medicina, Universidade de Lisboa, Lisboa, Portugal. Av. Prof. Egas Moniz, 1649-028 Lisbon, Portugal.

<sup>2</sup>Instituto de Medicina Molecular, Faculdade de Medicina, Universidade de Lisboa, Lisboa, Portugal. Av. Prof. Egas Moniz, 1649-028 Lisbon, Portugal.

<sup>3</sup>Centro Hospitalar Universitário Lisboa Norte, Lisboa, Portugal. Av. Prof. Egas Moniz, 1649-035 Lisbon, Portugal.

†The second and third authors contributed equally to the study

Filipa G. Marques: [filipa.gil.marques@gmail.com](mailto:filipa.gil.marques@gmail.com)

Lara Carvalho: [laramcarv@gmail.com](mailto:laramcarv@gmail.com)

Joana S. Sousa: [josousa@biophys.mpg.de](mailto:josousa@biophys.mpg.de)

Isabel Diegues: [isabel.diegues@chln.min-saude.pt](mailto:isabel.diegues@chln.min-saude.pt)

Filomena Pina: [filomena.pina@chln.min-saude.pt](mailto:filomena.pina@chln.min-saude.pt)

Esmeralda Poli: [esmeralda.poli@chln.min-saude.pt](mailto:esmeralda.poli@chln.min-saude.pt)

José Rino: [Josefino@medicina.ulisboa.pt](mailto:Josefino@medicina.ulisboa.pt)

Leonor Saúde: [msaude@medicina.ulisboa.pt](mailto:msaude@medicina.ulisboa.pt)

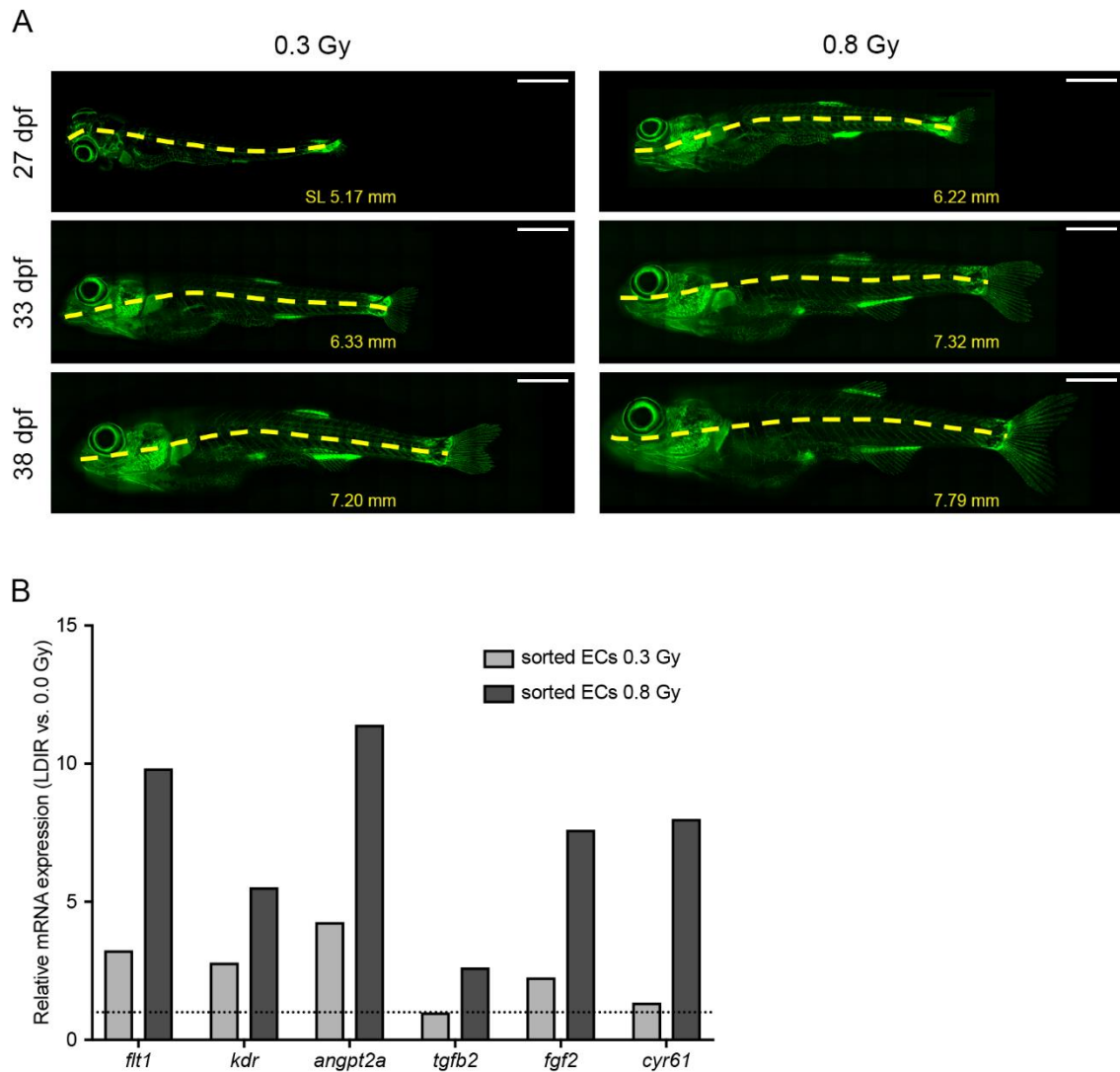
\* Corresponding author

Address Correspondence to: Susana Constantino Rosa Santos; [sconstantino@medicina.ulisboa.pt](mailto:sconstantino@medicina.ulisboa.pt)

Faculdade de Medicina da Universidade de Lisboa. Avenida Prof. Egas Moniz. Edifício Egas Moniz 1649-028 Lisboa. Fax: +351 217 999 477; Tel: +351 217 999 481

**This PDF file includes:**

**Supplementary Figure 1**



**Figure S1 – Rates of LDIR in the zebrafish development** *Fli1:EGFP* zebrafish larvae were exposed or not to 0.3 or 0.8 Gy at 3, 4 and 5 dpf and photographed over-time. (A) Representative images of the vasculature from zebrafish exposed to 0.3 or 0.8 Gy at the 27<sup>th</sup>, 33<sup>rd</sup> and 38<sup>th</sup> dpf. The standard length (SL), in mm, was measured at each time-point for both irradiated experimental conditions. (B) The mRNA expression of *flt1*, *kdr*, *angpt2a*, *tgfb2*, *fgf2*, and *cyr61* from endothelial sorter cells was quantified by qRT-PCR and normalized to *elongation factor 1*. Data represent the relative mRNA levels of endothelial sorted cells from larvae exposed to 0.3 or 0.8 Gy relative to the non-irradiated one (dashed line).