

repository@rcsi.com

## Simulating and predicting cellular and in vivo responses of colon cancer to combined treatment with chemotherapy and IAP antagonist Birinapant/TL32711.

## AUTHOR(S)

Nyree Crawford, Manuela Salvucci, Christian T. Hellwig, Frank A. Lincoln, Ruth E. Mooney, Carla L O'Connor, Jochen HM Prehn, Daniel B Longley, Markus Rehm

## CITATION

Crawford, Nyree; Salvucci, Manuela; Hellwig, Christian T.; Lincoln, Frank A.; Mooney, Ruth E.; O'Connor, Carla L; et al. (2018): Simulating and predicting cellular and in vivo responses of colon cancer to combined treatment with chemotherapy and IAP antagonist Birinapant/TL32711.. figshare. Journal contribution. https://hdl.handle.net/10779/rcsi.10789853.v1

HANDLE

10779/rcsi.10789853.v1

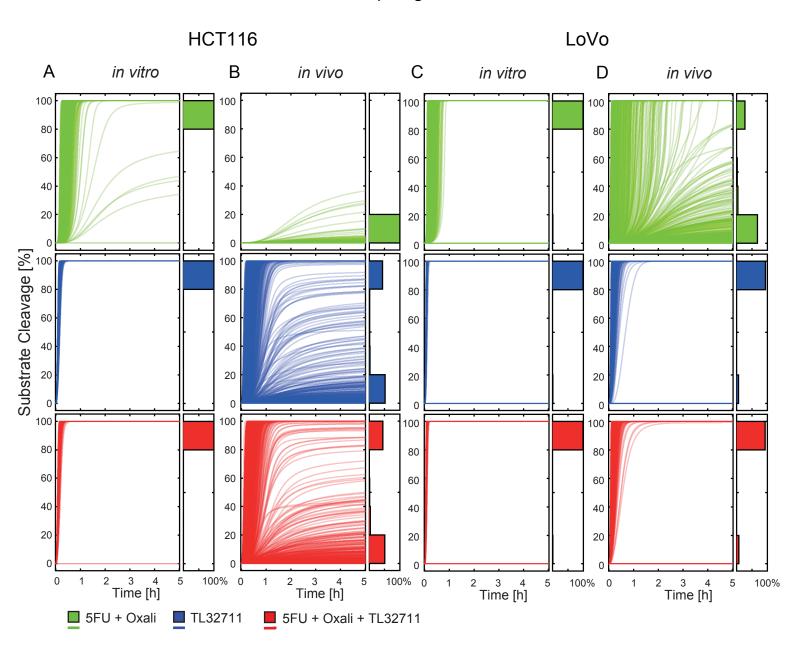
LICENCE

## CC BY-NC-SA 4.0

This work is made available under the above open licence by RCSI and has been printed from https://repository.rcsi.com. For more information please contact repository@rcsi.com URL

https://repository.rcsi.com/articles/Simulating\_and\_predicting\_cellular\_and\_in\_vivo\_responses\_of\_colon\_canc er\_to\_combined\_treatment\_with\_chemotherapy\_and\_IAP\_antagonist\_Birinapant\_TL32711\_/10789853/1

Sup. Fig. 1



Supplemental Figure 1: Mathematical simulations of *in vitro* and *in vivo* apoptosis competency subsequent to MOMP. (A-D) The behaviour of ensembles of 1,000 cells per treatment condition was mathematically modelled for HCT116 cells *in vitro* (A) and *in vivo* (B) or LoVo cells *in vitro* (C) and *in vivo* (D). Cell ensembles were parameterised as described in the main manuscript. Each line represents the behaviour of one cell in the modelled ensemble. High amounts of substrate cleavage indicate that modelled cells are capable of executing apoptosis efficiently. Absent substrate cleavage or low amounts of substrate cleavage indicate that post-MOMP heterogeneity is particularly prominent at *in vivo* conditions.