Supplemental.

Movies.

http://www.imomodelview.com/Publications/Gallaher/Adaptive_Therapy/Gallaher_et_al_2017.html

Figures.

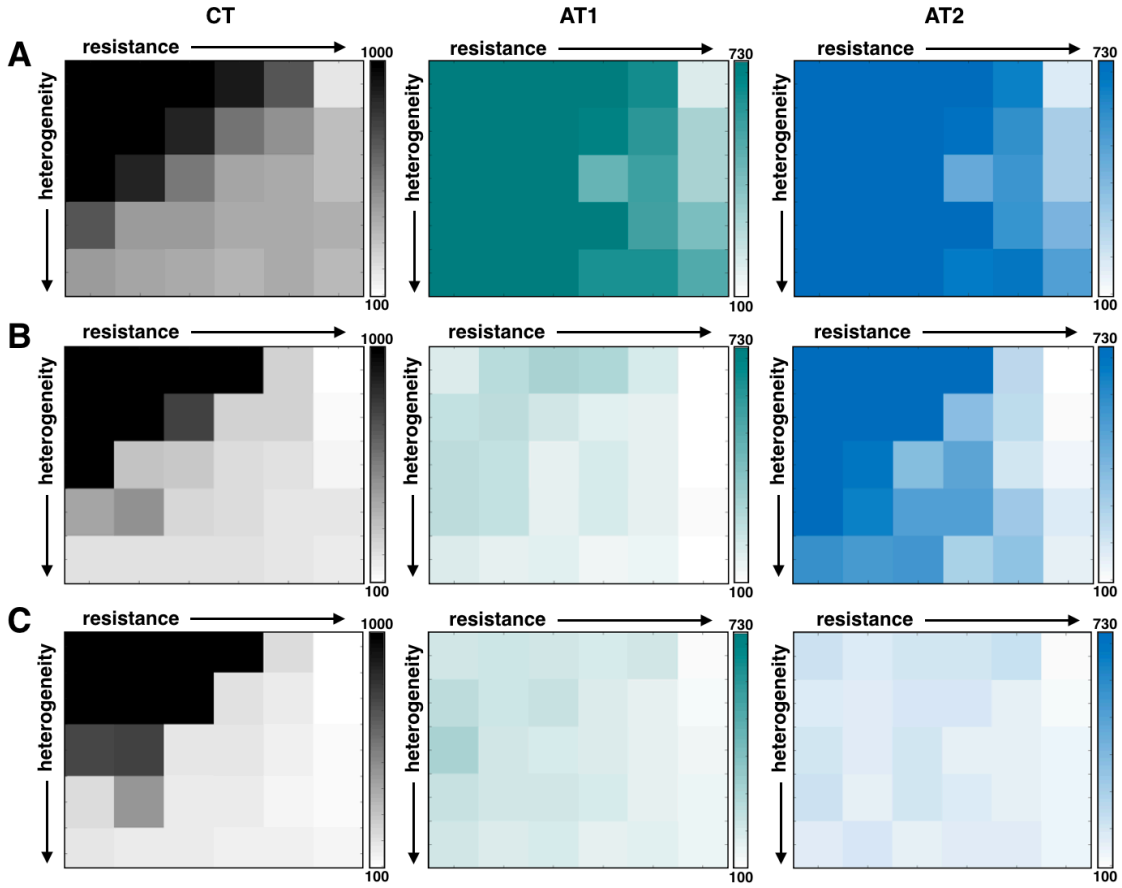

Figure S1. *The mean time until recurrence (TTR) of 3 runs over an array of tumor compositions for treatment schedules CT, AT1, and AT2. For CT, the TTR is set to 1000 if the tumor is cured. For both AT schedules, if the tumor is controlled, the TTR is the end of the simulation: 730 days. A) Cells do not migrate. B) Cells have migration speeds of 5 µm/h. C) Cells have migration speeds of 10 µm/h.*

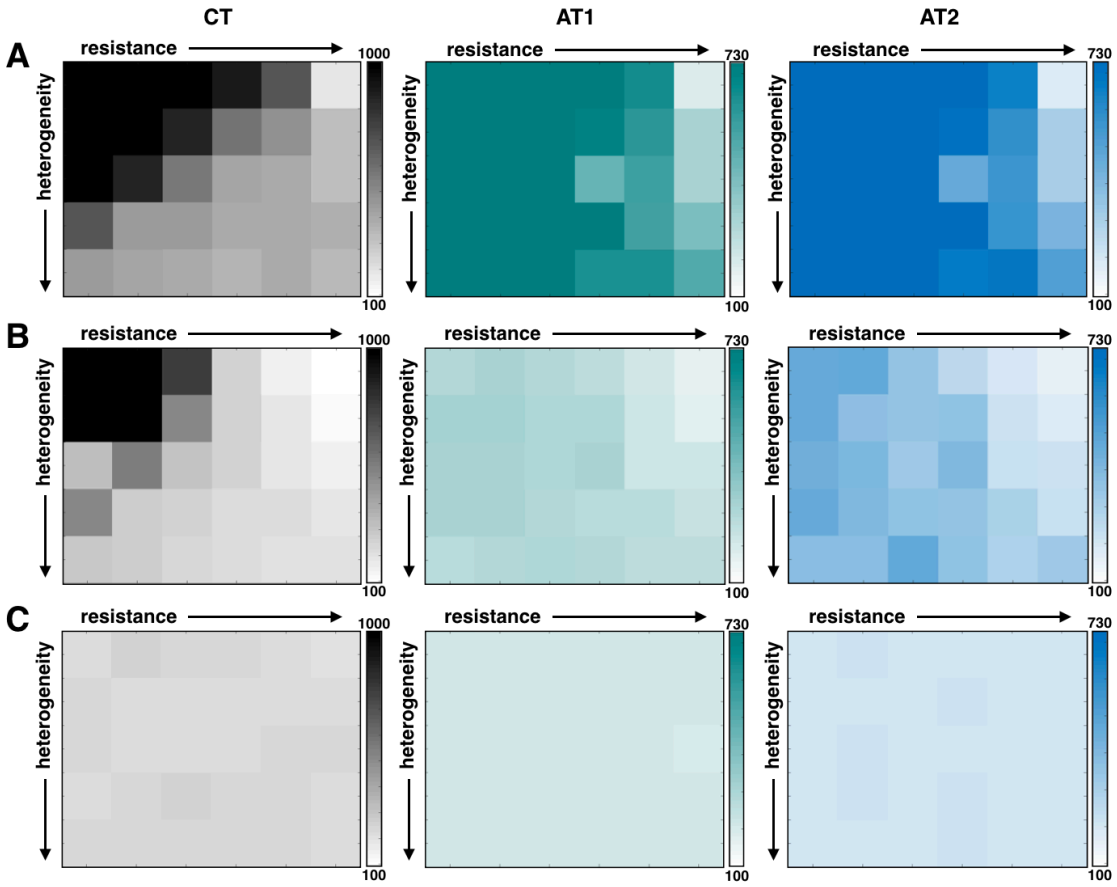

Figure S2. *The mean time until recurrence (TTR) of 3 runs over an array of tumor compositions for treatment schedules CT, AT1, and AT2. For CT, the TTR is set to 1000 if the tumor is cured. For both AT schedules, if the tumor is controlled, the TTR is the end of the simulation: 730 days. A) Cells do not have phenotypic drift. B) Cells have phenotypic drift; there is a 10% probability at each division that a cell will alter its cycle time by ±1 h or stay the same (ensuring that the IMT stays within the allowed range of 10-50h). C) Cells have phenotypic drift; there is a 100% probability at each division a cell will alter its cycle time by ±1 h or stay the same (ensuring that the IMT stays within the allowed range of 10-50h).*

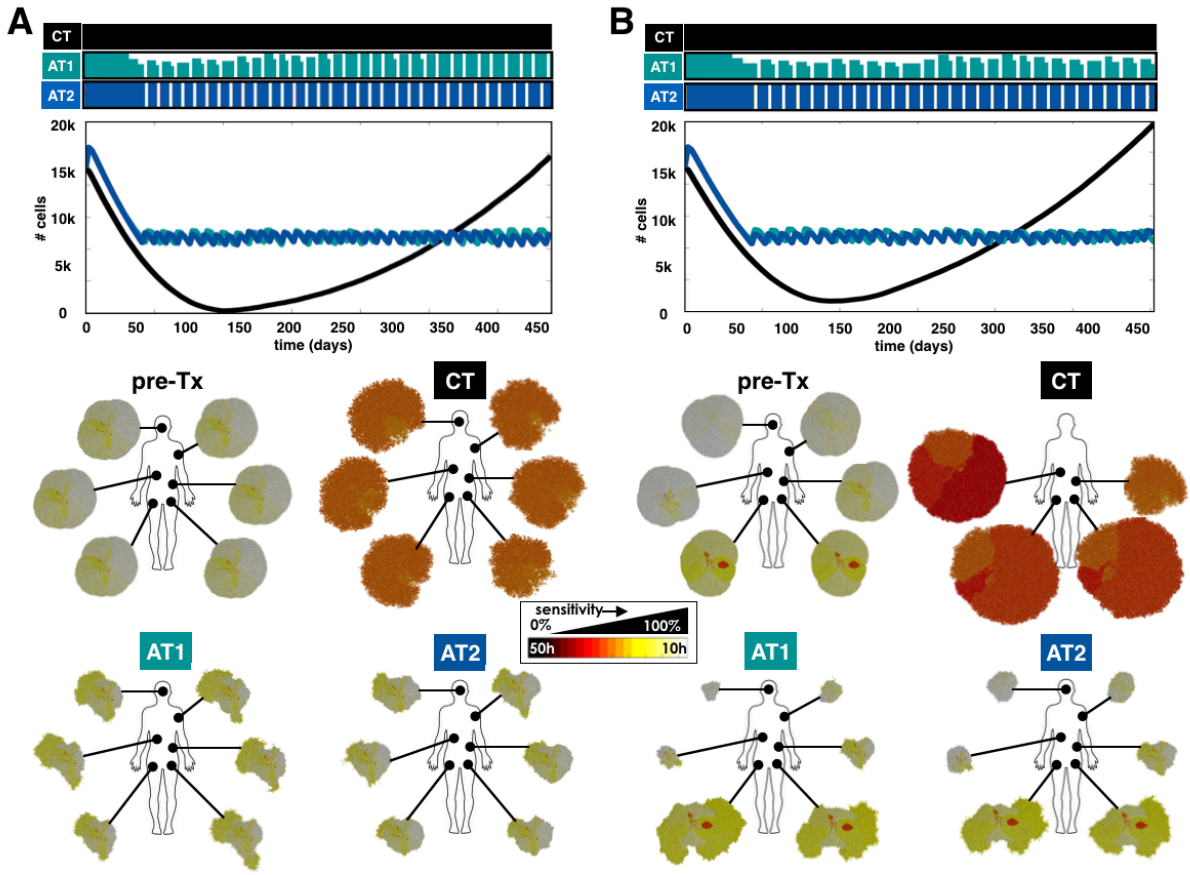

Figure S3. *Multiple metastases treated at the same time with CT, AT1, and AT2. A) Metastases of the same composition are treated. B) Metastases with different compositions are treated. The top panels show the dose schedule for each strategy with the bar height representing the percentage of MTD given over time. The middle panel shows the population dynamics for the total burden (sum of all metastases). The bottom portion shows the pre-treatment spatial configuration for all metastases and their final spatial configurations after each treatment.*