

## Supporting Information S1 Table.

	parameter	description	value
CTL	$v^*$	CTL displacement velocity	$8.66\mu m/min$
	$\mu^{*o}$	Inverse of the time required for killing one target cell	$0.038min^{-1}$
	$\kappa^\diamond$	Number of tumor cells killed by a single CTL	5
	$N_{CTL}^o$	CTL number at the beginning of the simulation	
Melanoma	$\Delta^*$	Melanoma cell diameter	$12.5\mu m$
Nodule	$L^\diamond$	Melanoma nodule diameter at the beginning of the simulation	$300\mu m$
	$\lambda^*$	Inverse of the time required for tumor cell division	$0.001min^{-1}$
	$E^*$	Thickness of the proliferative shell of the tumor mass	$2\Delta$
	$p_{res}^\diamond$	Probability of a tumor cell to become more resistant to CTL attack at each division	$\frac{1}{2}$
	$p_{inv}^\diamond$	Probability of a tumor cell to become “invisible” to CTL at each division	$\frac{1}{2} \left( \frac{1}{2} - \frac{1}{res} \right)$
Motility	$D^\diamond$	Maximal distance allowed for CTL attraction (if distance between CTL and tumor mass $\geq \sqrt{D}$ , CTL are not attracted)	$350\mu m$
Biased	$K^\diamond$	Number of scout CTL generating a maximal attraction	10
	$\nu^o$	Maximal level of attraction	

**S1 Table. Parameters used in simulations.** \* estimated parameters, <sup>o</sup> varying parameters, <sup>◇</sup> arbitrary parameters.