

CLAIMS

1. A method comprising:
 - (a) providing a microfluidic device comprising an at least partially porous membrane, the membrane comprising a first surface and a second surface, the first surface
5 comprising living epithelial cells in contact with living tumor cells comprising melanoma cells; and
 - (b) introducing immune cells in the microfluidic device.
2. A method according to Claim 1, further comprising introducing a checkpoint inhibitor in
10 the microfluidic device, and determining whether the checkpoint inhibitor causes tumor cell death.
3. A method according to Claim 2, in which the checkpoint inhibitor is an antibody.
4. A method according to Claim 3, in which the antibody binds the PD-1 receptor on the immune cells.
5. A method according to Claim 3, in which the antibody binds the PD-L1 ligand on the
15 tumor cells.
6. A method according to Claim 1, in which the immune cells comprise fibroblasts.