Supplementary Information

Microfluidic Co-Cultures with Hydrogel-Based Ligand Trap to Study Paracrine Signals Giving Rise to Cancer Drug Resistance

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Supplementary Figure Legends

**Supplementary Figure 1.** Dose-dependent response curve of A375 cells to vemurafenib in microchambers. Cell viability assays show cells starting to die off after exposure to 1 μM of vemurafenib.

**Supplementary Figure 2.** Changes in average FGF-2 concentration inside the cell channels having regular hydrogel barrier (red) or anti-FGF antibodies-containing hydrogel barrier (black): (A) resistant cell channel and (B) sensitive cell channel. Over a 12-hour period, there is a ~3-fold decrease in FGF-2 concentration in resistant cell chamber and undetectable levels of the protein in the sensitive cell chamber.
Supplementary Figure 1

![Graph showing % Cell Viability vs. Vemurafenib Concentration (μM)].

The graph illustrates the effect of varying concentrations of Vemurafenib on cell viability. As the concentration of Vemurafenib increases, the % Cell Viability decreases, indicating a dose-dependent inhibition of cell viability.
Supplementary Figure 2

(A) Graph showing [FGF-2] (nM) over time (h) with different hydrogel barriers.

(B) Graph showing [FGF-2] (nM) over time (h) with different anti-FGF2 Ab-hydrogel barriers.