**Supplemental Data**

**Dispensing Processes Impact Apparent Biological Activity as Determined by Computational and Statistical Analyses**

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**Supplemental Results**

Showing pharmacophore model information foracoustic-based liquid handling with direct dilution and tip-based liquid handling with serial dilution.

Pharmacophore information developed using Accelrys Discovery Studio (v2.5.5. San Diego, CA) for each dataset.

Acoustic-based liquid handling with direct dilution



Null cost = 64.7

Tip-based liquid handling with serial dilution



Null cost = 59.54