

# Experiment 1 (Analytical)

- 11 compounds formulated in *fresh* DMSO (10mM)
- Plated in 96-well plate and sealed with aluminium foil and lid
- Stored over a month:
  - at room temperature (drawer)
  - freezer
  - under inert atmosphere (POD)

- ▶ Analyses by LCMS (at day 1, day 5 and day 30) showed :
  - No loss of compound observed through chemical degradation (i.e. purity stays the same)
  - No loss of compound observed through precipitation (i.e. same peak area=concentration stays the same)

# Experiment 1 (Analytical) Results

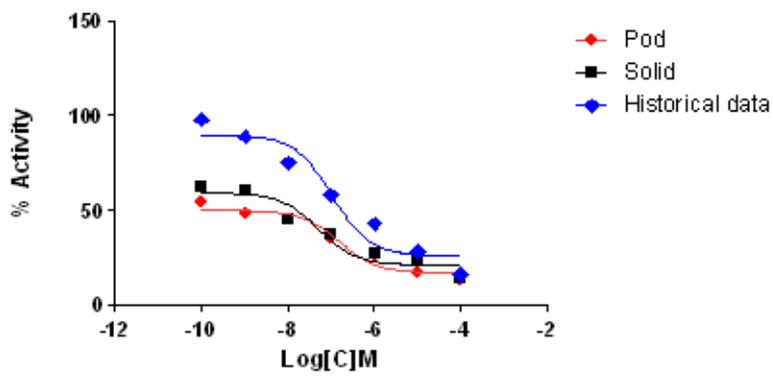
	Concentration at day 32 (mM)		
	POD	Freezer	RT
Compound 1	10.09	8.79	8.81
Compound 2	10.15	9.03	6.90
Compound 3	9.95	8.85	8.80
Compound 4	10.88	9.80	9.70
Compound 5	10.09	8.71	8.92
Compound 6	10.00	8.64	8.93
Compound 7	10.09	9.04	8.98
Compound 8	10.21	9.04	8.08
Compound 9	10.00	8.77	8.76
Compound 10	10.07	8.88	8.13
Compound 11	9.38	8.92	7.94
Caffeine	10.34	10.38	10.37

Concentration calculated at day 32 from peak area measurement compared to peak area at day 1.

## Experiment 2 (Biology)

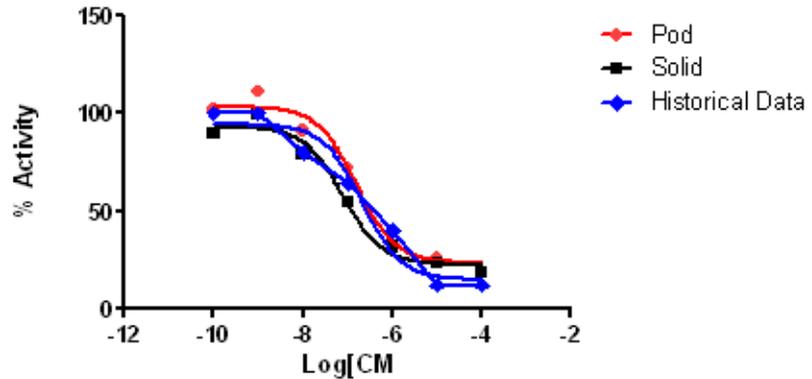
- ▶ **4 compounds were chosen:**
  - **Compounds 1 and 9: historically consistent**
  - **Compounds 10 and 11 : large variability (up to 1000 fold) depending on handling history**
  
- ▶ **Compounds were formulated in fresh DMSO (10mM) and stored in POD for 40 days**
  - **Analyses by LCMS**
  - **Run through biology assay**

**Compound 1**



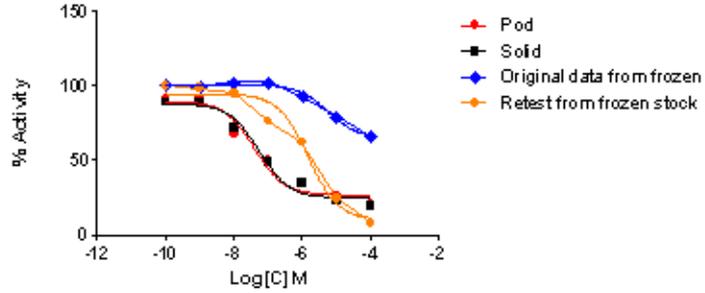
	Pod	Solid	Historical data
IC50	1.572e-007	5.115e-008	1.065e-007

**Compound 9**



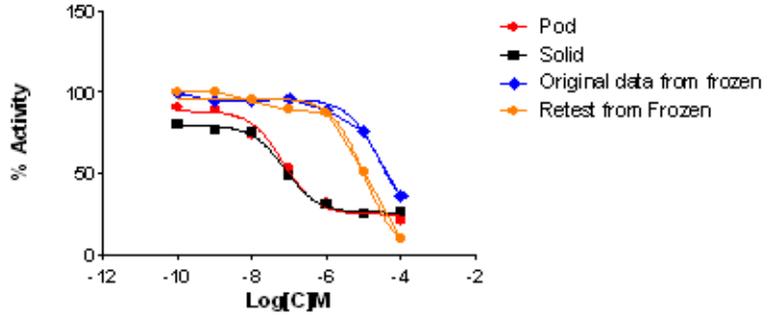
	Pod	Solid	Historical Data
IC50	1.639e-007	8.099e-008	2.177e-007

**Compound 10**



	Pod	Solid	Original data from frozen	Retest from frozen stock
IC50	3.946e-008	5.558e-008	5.419e-006	1.499e-006

**Compound 11**



	Pod	Solid	Original data from frozen	Retest from Frozen
IC50	7.050e-008	7.658e-008	2.741e-005	1.084e-005

## Customer's Summary

In summary, the POD showed that the concentration of our stock solutions did stay constant throughout the 40 day trial period and that the purity of the material was preserved.

From the biology side, we did previously experience for some compounds large variations of results depending on the handling history. The difference in IC50 between fresh stock and frozen stock could be 1000 fold even after 5 days in freezer (1 freeze-thaw cycle).

The POD showed that results were consistent between fresh stock and 40 days storage.