

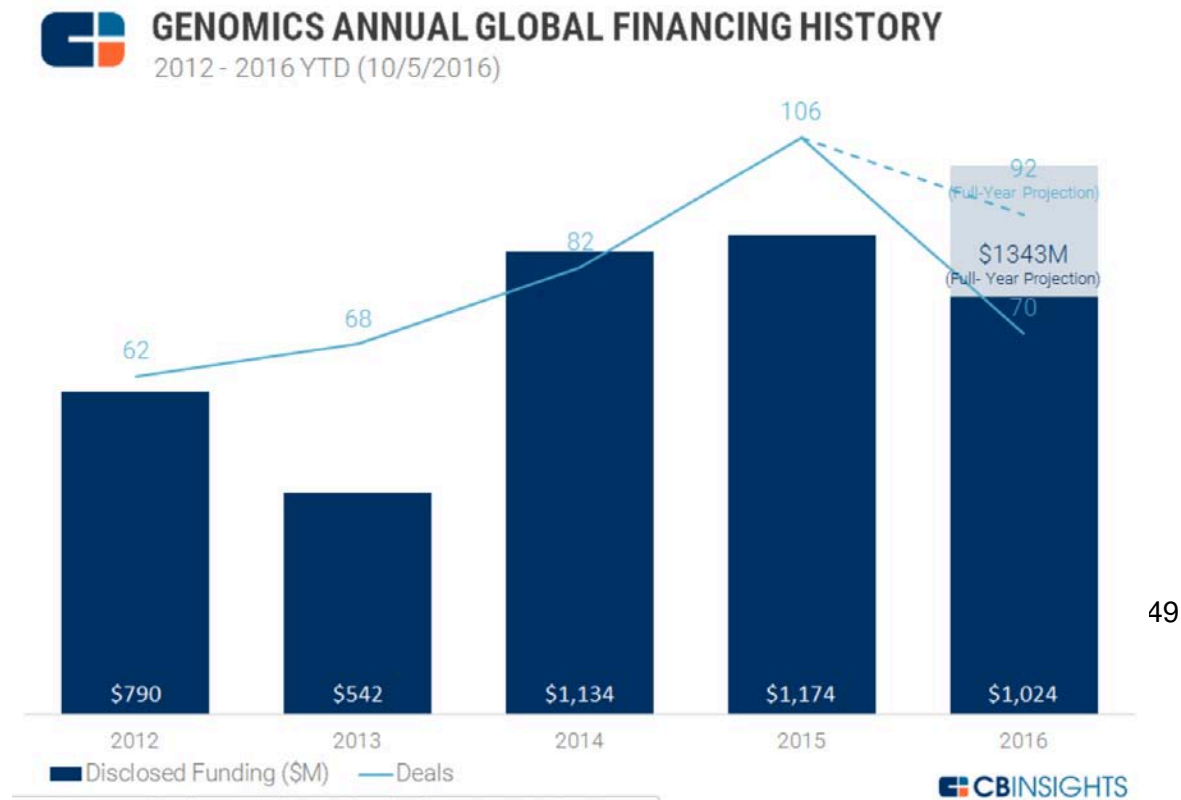
Functional Diagnostic Approaches in Clinical Trials



Alfred Bauer & William Kirby 1960

Cancer Progress by Defined Health
New York, NY | March 7 - 8, 2017

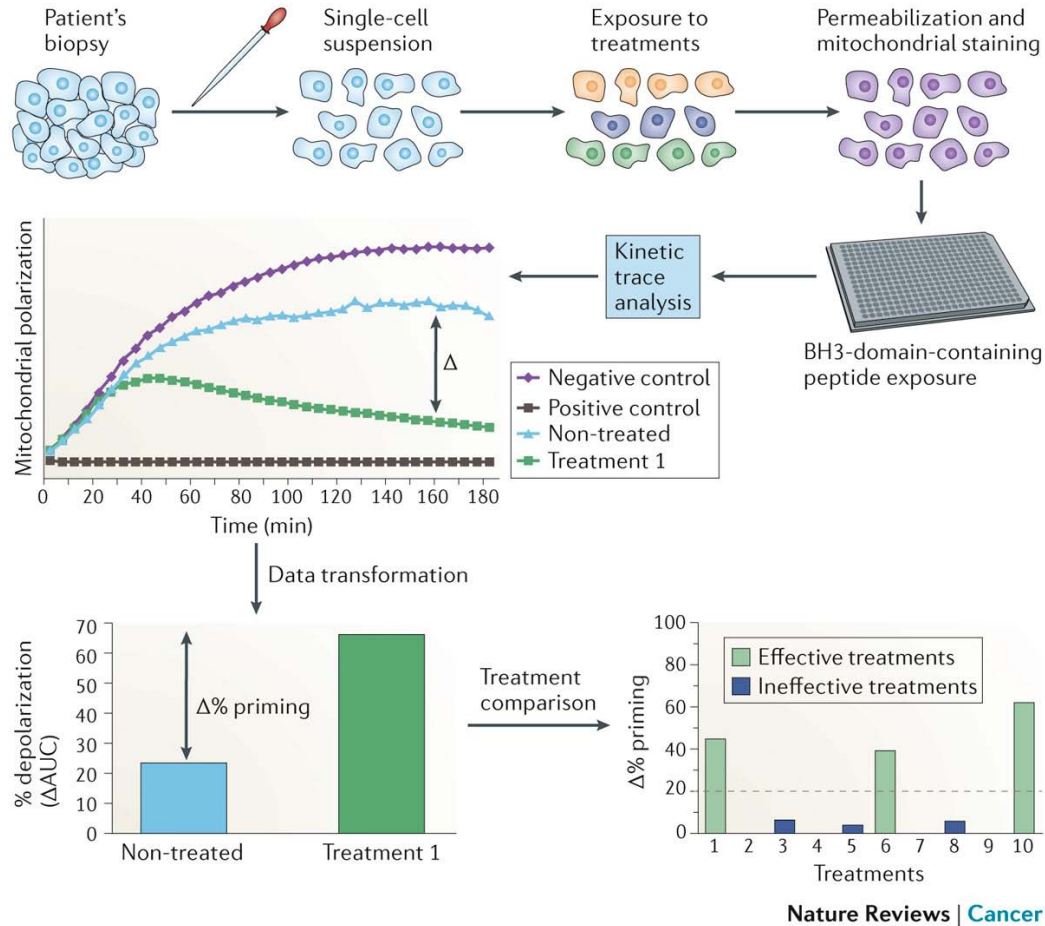
“How much easier it is to be critical than correct”
-Benjamin Disraeli



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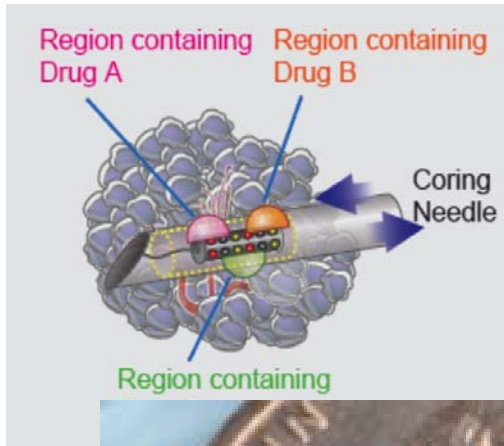
Dynamic BH3 Profiling



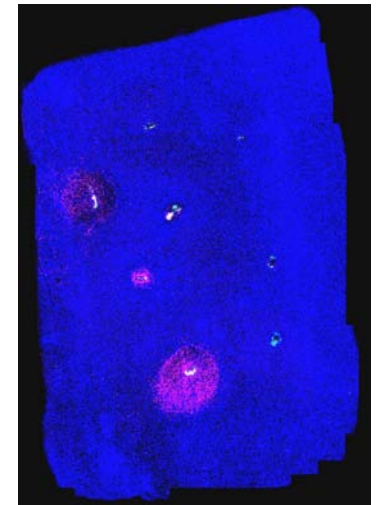
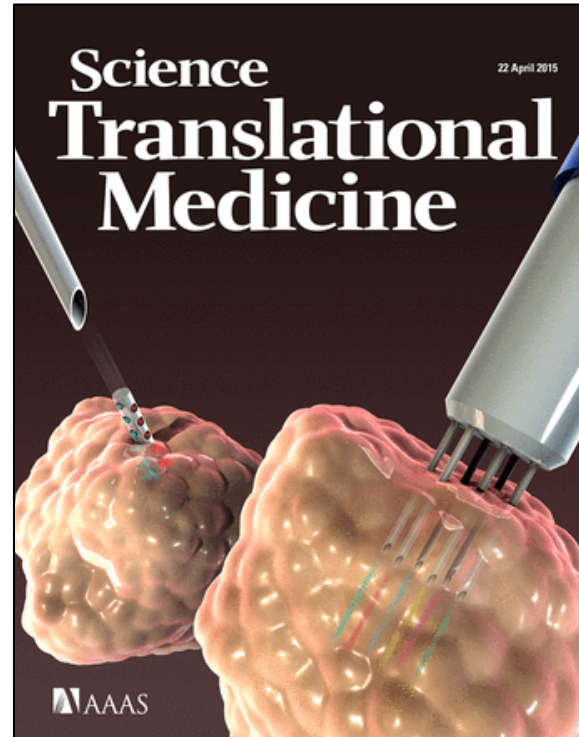
Nature Reviews | [Cancer](#)

Montero et al., 2015, Cell 160, 977–989

In Vivo Functional Diagnostics



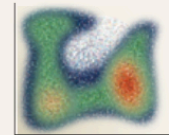
Kibur



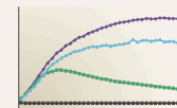
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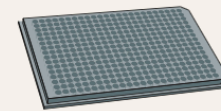
- Other functional approaches
 - 2D ex vivo
 - Immuno-flow pathway profiling
 - 3D & Organotypic cultures
 - Avatar mice
- Applications
 - Biological hypothesis exploration
 - Inclusion criteria
 - Exploratory IND
 - Go/No-go on combinations
- Example
 - Systemic dosing of a checkpoint inhibitor + local dosing of TME modulators



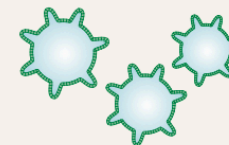
Immuno-flow pathway profiling (e.g. phospho-antibody FACS)



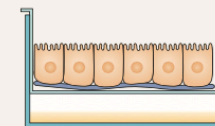
DBP (e.g. apoptotic priming assay)



2D ex vivo drug cytotoxicity (e.g. ATP levels, MTT, proliferation and cell counting)



3D organoid drug cytotoxicity (e.g. ATP levels, MTT, proliferation and cell counting)



Organotypic culture cytotoxicity (e.g. ATP levels, MTT, proliferation and cell counting)



PDX mouse model (e.g. tumour sizing and in vivo imaging)

Friedman et al, Nature Reviews Cancer, 2015