

From a single dot . . .



a valuable pathway.

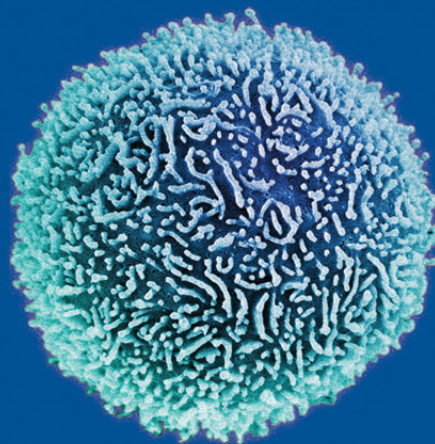
From a single experiment . . .
an entire cellular perspective.

Phenotype MicroArrays™ are convenient pre-filled microplates that provide a comprehensive overview of cellular pathways and phenotypes. Together with our fully integrated OmniLog® instrumentation and software, this high-throughput screening platform analyzes cells under thousands of culture conditions, providing an unbiased way of looking at the effect on cells of genetic differences, environmental change, exposure to drugs, and more. Whether you use the technology for assay or culture medium development, fingerprinting or discovery, every cell line will yield a unique profile that can add a fresh cell-based perspective to your research.

kinetic



quantitative



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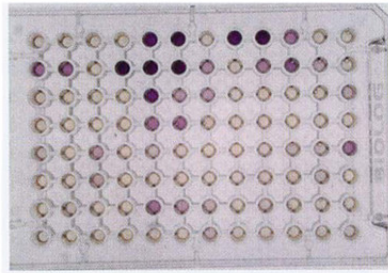
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Cellular Insight

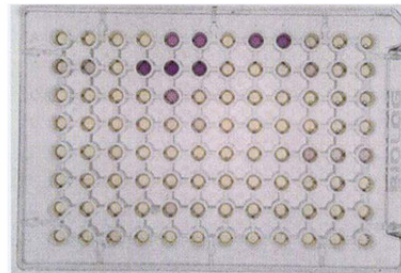
The Warburg Effect Recapitulated

Mouse Embryonic Fibroblasts

Immortalized



Ras-transformed



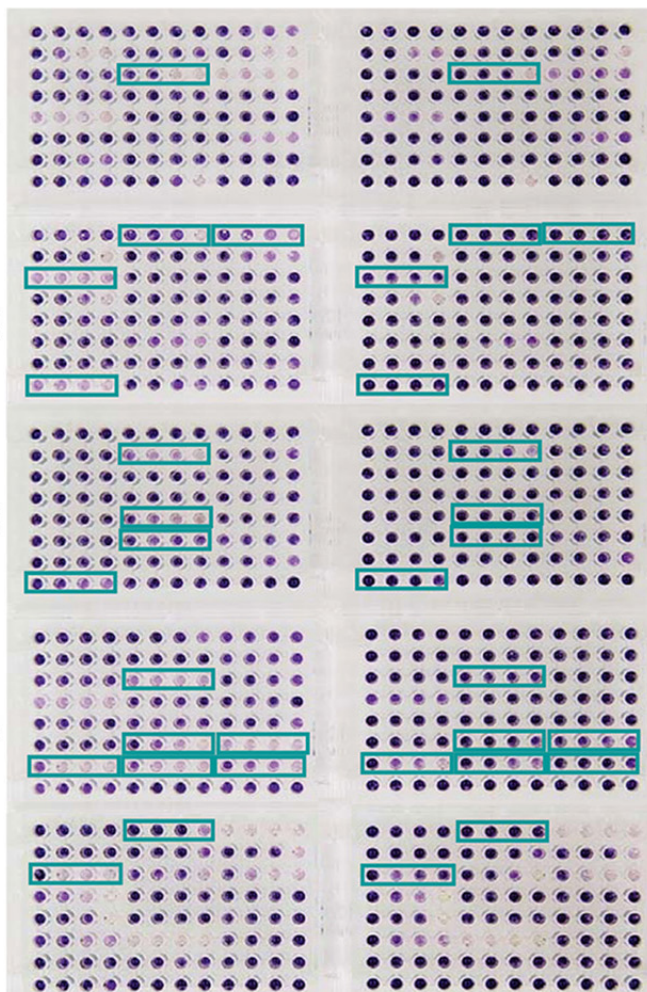
- Cells with or without H-ras metabolize glucose, mannose, dextrin, glycogen, maltotriose and maltose
- When cells are transformed with H-ras, they lose the ability to metabolize galactose, arabinose, melibiose, trehalose, salicin, mannitol, fucose, inosine, glucose-6-phosphate, glucose-1-phosphate, fructose-6-phosphate, 3-methyl-glucose, β -methyl-glucoside, methyl pyruvate and pyruvate

trehalose, glucose-6-PO₄, glucose-1-PO₄, 3-methyl-glucose, β -Mthyl-glucoside, salicin, mannitol, gucose, fructose-6-PO, galactose, inosine, arabinose, melibiose, methyl pyruvate, pyruvate

An Oncogene Induces Chemical Resistance

Immortalized

Ras-transformed



PM-M11

PM-M12

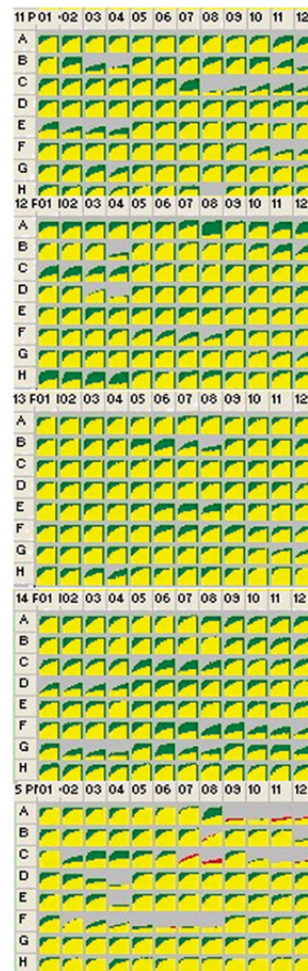
PM-M13

PM-M14

PM-M5

92
Anti-
Cancer
Drugs

22
Ions



Ras-transformed cells are more resistant to 17 drugs and ions than untransformed, but immortalized mouse embryonic fibroblasts

Data courtesy of Luke Whitesell and Susan Lindquist, Whitehead Institute