

# Cancer Metabolism: Where Exactly is the Sweet Spot?

**Moderator:** Moderator: Marc Ruben, PhD, Associate Consultant, Defined Health

**Panelists:**

- Tak Mak, PhD, Director, The Campbell Family Institute for Breast Cancer Research, Ontario Cancer Institute; University Professor, University of Toronto
- Matthew Vander Heiden, MD, Assistant Professor of Biology, MIT
- Charles Hart, PhD, Vice President of Biology, Threshold Pharmaceuticals

The logo features the words "CANCER" and "PROGRESS" in a bold, black, sans-serif font. "CANCER" is positioned above "PROGRESS". Below "PROGRESS" is the tagline "by Defined Health" in a smaller, italicized, black font. The text is overlaid on a large, light blue, tilted oval shape.

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# Developmental pipeline: A wave of early-stage compounds targeting metabolic enzymes in cancer

## TCA cycle/mitochondrial metabolism

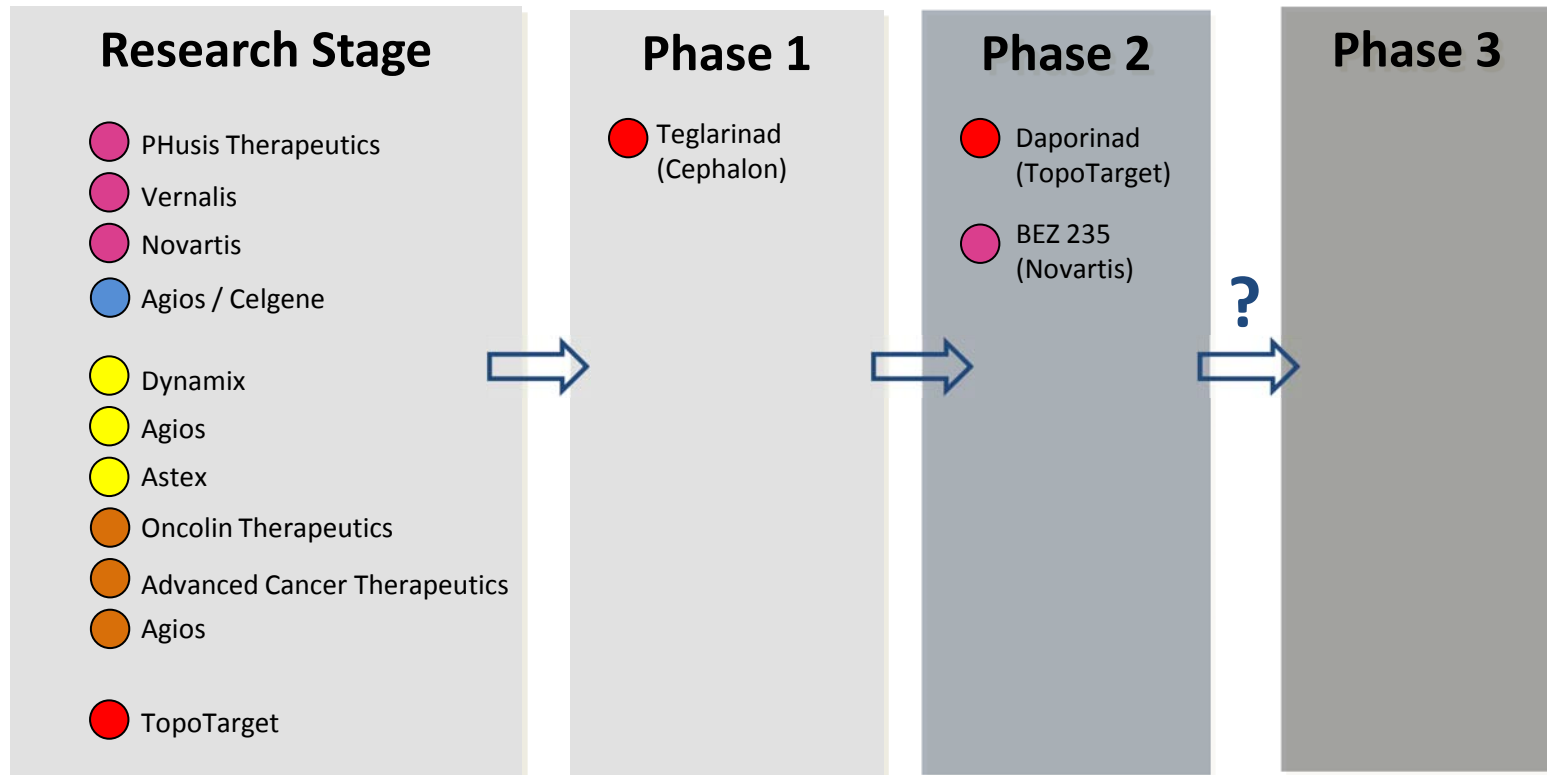
● IDH 1, IDH2   ● PDK 1

## Glycolysis

● PFK / PFKFB3   ● PKM 2

## NAD Metabolism

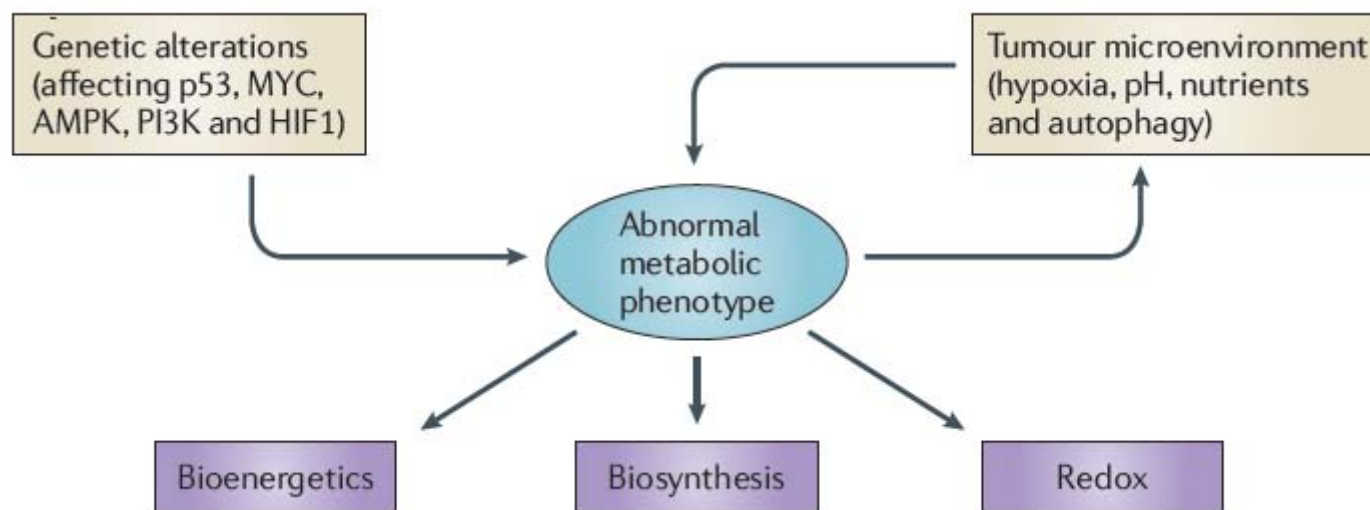
● NAMPT



Sources: 1) ADIS; 2) IDDB; 3) DH analysis

# Interplay between cell growth, survival and metabolic signaling... ...where is the 'sweet spot' for intervention?

Which drivers of the *cancer metabolism phenotype* – optimized for energy production, biosynthesis and balanced redox – are likely to have the most therapeutic potential ?



[Nat Rev Cancer](#), 2011 Feb;11(2):85-95. doi: 10.1038/nrc2981.

## Regulation of cancer cell metabolism.

Cairns RA, Harris IS, Mak TW.

The Campbell Family Cancer Research Institute, Toronto, ON M56 2M9, Canada.

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