ERBB SIGNALING PATHWAY Pancreatic ER Calcium signaling pathway Non-small cell CAMK Cellular targets lung cancer IP3 賽 PLCy Proliferation (EGFR) ErbB-1 ErbB-1 PKC Cellular targets DG EGF Receptor ubiquitylation Degradation TGFα STAT5 **►**○ AR ErbB-1 Survival DNA ErbB-2 Adhesion Migration FAK (HER2/ Neu) ErbB-2 Angiogenesis BTC Jun ErbB-2 JNK **►**○ HB-EGF Elk DNA EPR Activation by ErbB2 overexpression (cancers) MAPK signaling pathway ErbB-3 Adhesion No signaling ErbB-3 Grb2 Sos **→**○ Elk DNA ErbB-2 Grb2 NRG1 Migration / Invasion ErbB-3 **►**O DNA p70S6K +p<mark>, m</mark>TOR ErbB-4 Protein synthesis

 Bad

GSK-3

eIF-4EBP

Cell survival

Metabolism

Cell cycle progression

mTOR signaling pathway

Cell cycle

Differentiation

Glioma

Endometrial

cancer

GAB1

PIP3

PI3K-Akt

signaling pathway

PI3K

► PKB/Akt

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NRG3

ErbB-4

ErbB-2 ErbB-4