Pathways in Human Cancer

Autophagy

Atg7/3

S6K

Cytokine Receptor

PDK1

AMP

AKT Signar

autophagosome

ULK1 FIP20 Atg1

SQSTM1-

Angiogenesis

Receptor Tyrosine Kinase (RTK) ● mut, trans, amp, exp 十 ा ᠬ

> VEGF EPO PDGF

ALK ROS1

EGFR

HER2

Ras signaling

RB2

GRB2

sos

RasGAF

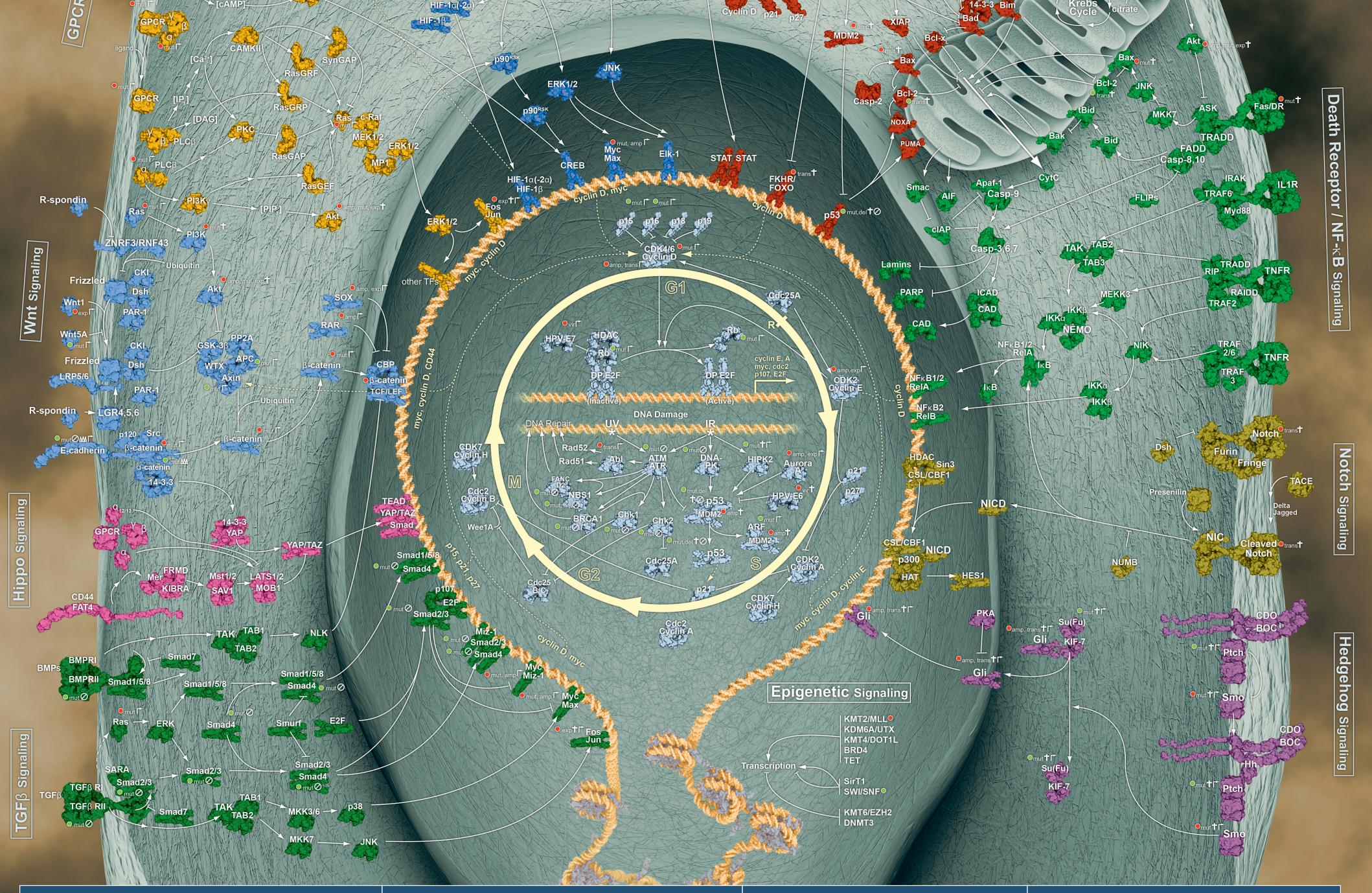
NF

GRAF

Rac

RalGEF





🔵 mut 🗗	Ras Common protein name O oncogene		mut Type of genetic alteration	→ Direct stimulatory modification → Tentative stimulatory modification		TYPES OF GENETIC ALTERATIONS:			TYPES OF CONFERRED CAPABILITIES:			
			I ⁺ Type of conferred capability									∞ Limitless replicative potential
					 Multistep stimulatory modification 		amp Amplification	n del Deletion	exp Increased expression (unknown mechanism)	I [™] Self-sufficiency in growth signals	M Tissue invasion & metastasis	☐ Sustained angiogenesis

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