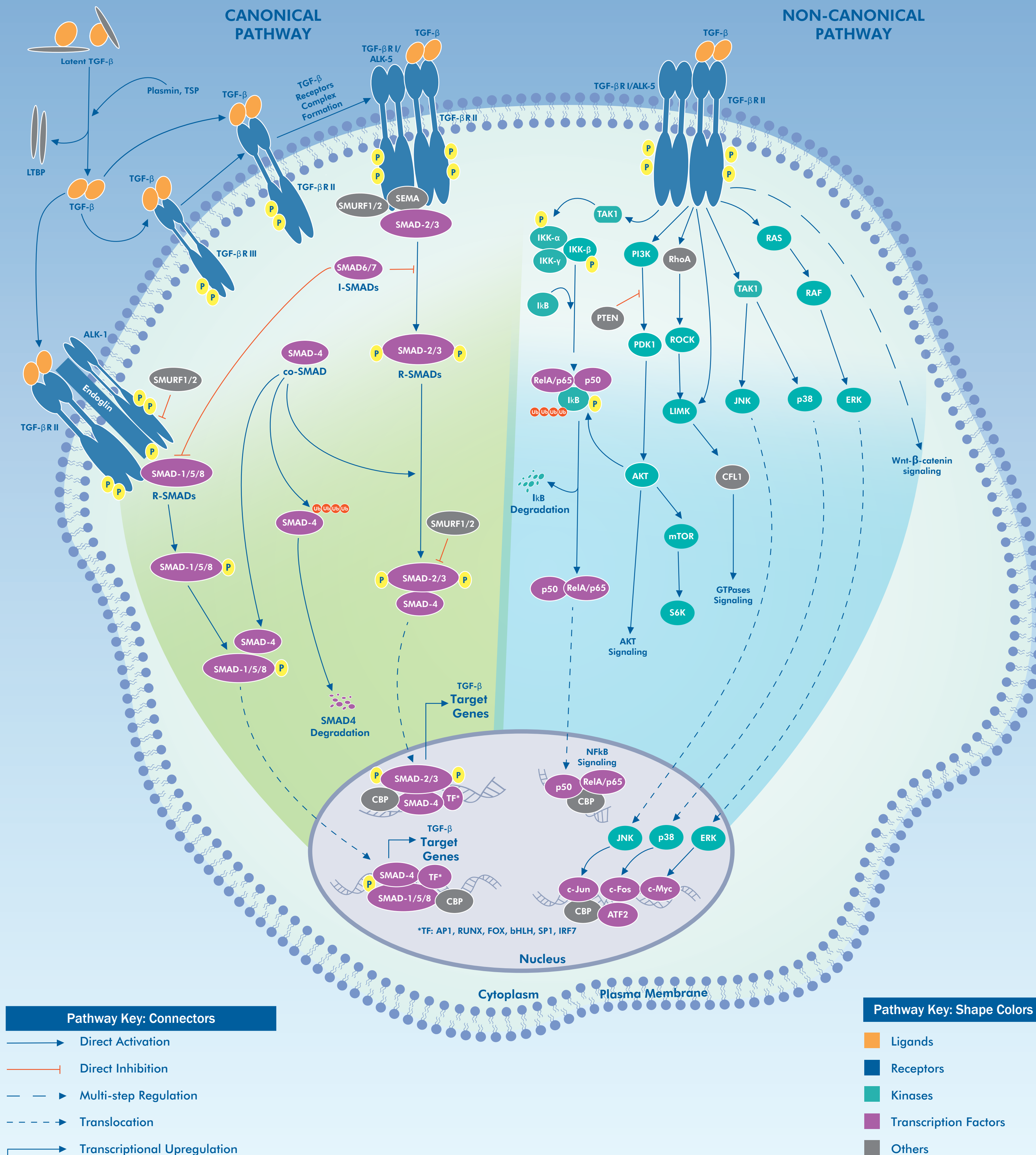
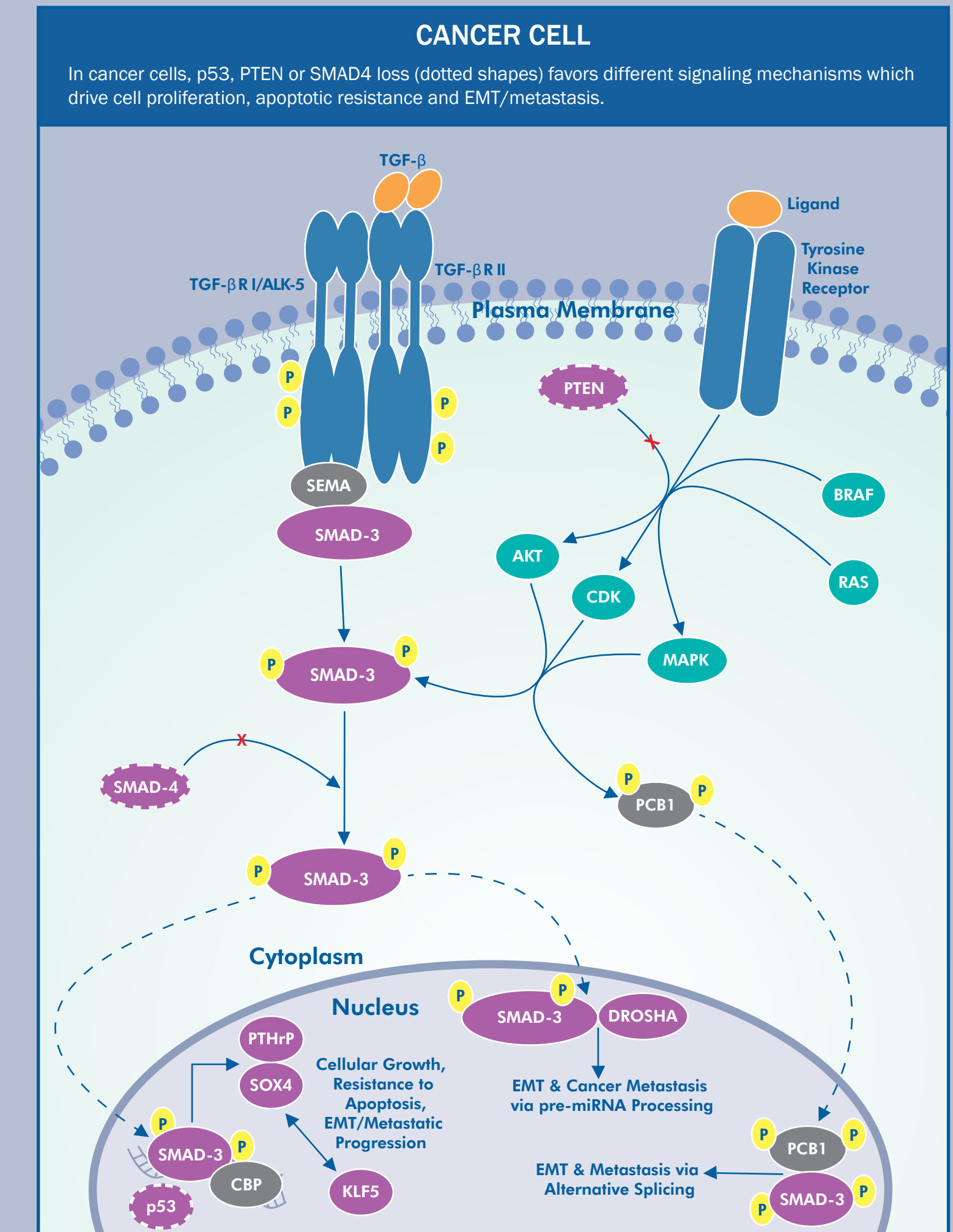
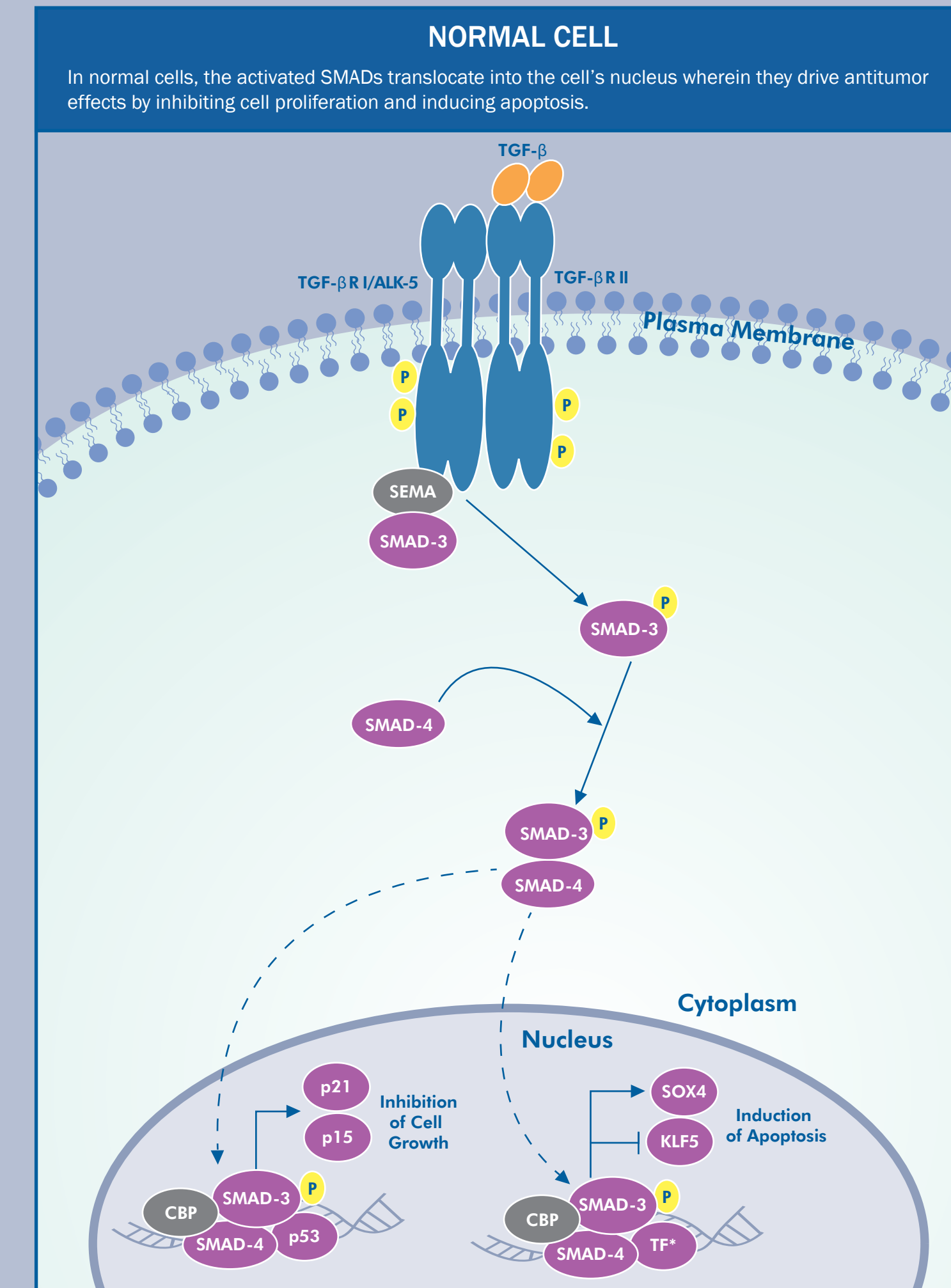


# TGF-β Signaling



Differential / Context Dependent TGF-β - SMADs Signaling in Normal and Cancer Cells



Target Genes of TGF-β Signaling

Processes	Target Genes
Angiogenesis	CTGF, FN1, ID1, IL6, MMP2, MMP9, SERPINE1/PAI1, TSP, VEGFA
Apoptosis	BCL2, BCL2L1/BCL-XL, BIK, BCL2L11/BIM, EIF2A, FAS, ERN1, EIF2AK3/PERK, MAPK8/JNK, SNAI1/Snail, SOX4
Autophagy	AMPK, AKT, ATG5, ATG7, BECN1, DAPK1, mTOR, TAB1, TAK1
Cell Proliferation	4EBP1/EIF4EBP1, AKAP12, ID1, ID2, MYC, p15/INK4B/CDKN2B, p21/CIP1/CDKN1A, p57/KIP2/CDKN1C, PDGFB, PI3K
Epithelial to Mesenchymal Transition	ACTN1, CFL1/CFL, COL4A1, HMGCA, MMP2, MMP9, NET1, SNAI1/Snail, SNAI2/Slug, TWIST, ZEB1, ZEB2
Extra-Cellular Matrix (ECM) Synthesis	ACTA2/α-SMA, COL1A1, COL4A1, CTGF, FN1, LAMC2, SPOK1
Immune Response	FASL, FOXP3, GZMA, GZMB, IFNG/IFG, IgA, IL11, IL17, IL2, IL6, KLRK1/NKG2D, PRF1, TNFA
Self-Renewal/Stemness	CTNNB1, HGF, KLF4, LIF, MET, NANOG, SOX2, SOX4, WNT5A

Small Molecule Inhibitors of TGF-β Signaling

Small Molecule	Description
LY 364947	Selective inhibitor of TGF-βRI
SB 525334	Selective inhibitor of TGF-βRI
SB 505124	Selective inhibitor of TGF-βRI, ALK4 and ALK7
GW 788388	Potent and selective inhibitor of TGF-βRI
SD 208	Potent ATP-competitive TGF-βRI inhibitor
R 268712	Potent and selective inhibitor of TGF-βRI
IN 1130	Potent and selective inhibitor of TGF-βRI
SB 431542	Potent, selective inhibitor of TGF-βRI, ALK4 and ALK7
A 83-01	Selective inhibitor of TGF-βRI, ALK4 and ALK7
RepSox	Potent and selective inhibitor of TGF-βRI
ITD 1	Selective inhibitor of TGF-β signaling
SIS3	Selective Smad3 inhibitor; inhibits TGF-βRI signaling

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