SnapShot: Adipocyte Life Cycle

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ADIPOSE DIFFERENTIATION AND OBESIGENIC EXPANSION

1 ADIPOSE STEM CELL PROLIFERATION

p21	Thyroid
Cyclin D1	TZDs
Rb	GH
E2Fs	VEGF
Estrogen	HGF

2 ADIPOCYTE DIFFERENTIATION

Transcription factors

PPARγ	TCF7L1	**Hormones**
C/EBPα	pCREB	Insulin
C/EBPβ, δ	Pref1	IGF1
KLF5, KLF6	KLF2	Estrogen
Krox20	GATA2/3	Glucocorticoids
SREBP-1c	FoxO1	Progesterone
STAT5a	FoxA2	β-adrenergic
Zfp423, Zfp467	FoxC2	Retinoic acid

Signal transduction	**Lipid storage**
BMP	CD36
FGF	LPL
PKA	Fatty acid synthase
Wnt	SREBP-1C
Hh	Perilipin
TGFβ	DGAT1
MAPK	ANGPTL4
PDGFRβ	

Pharmacology

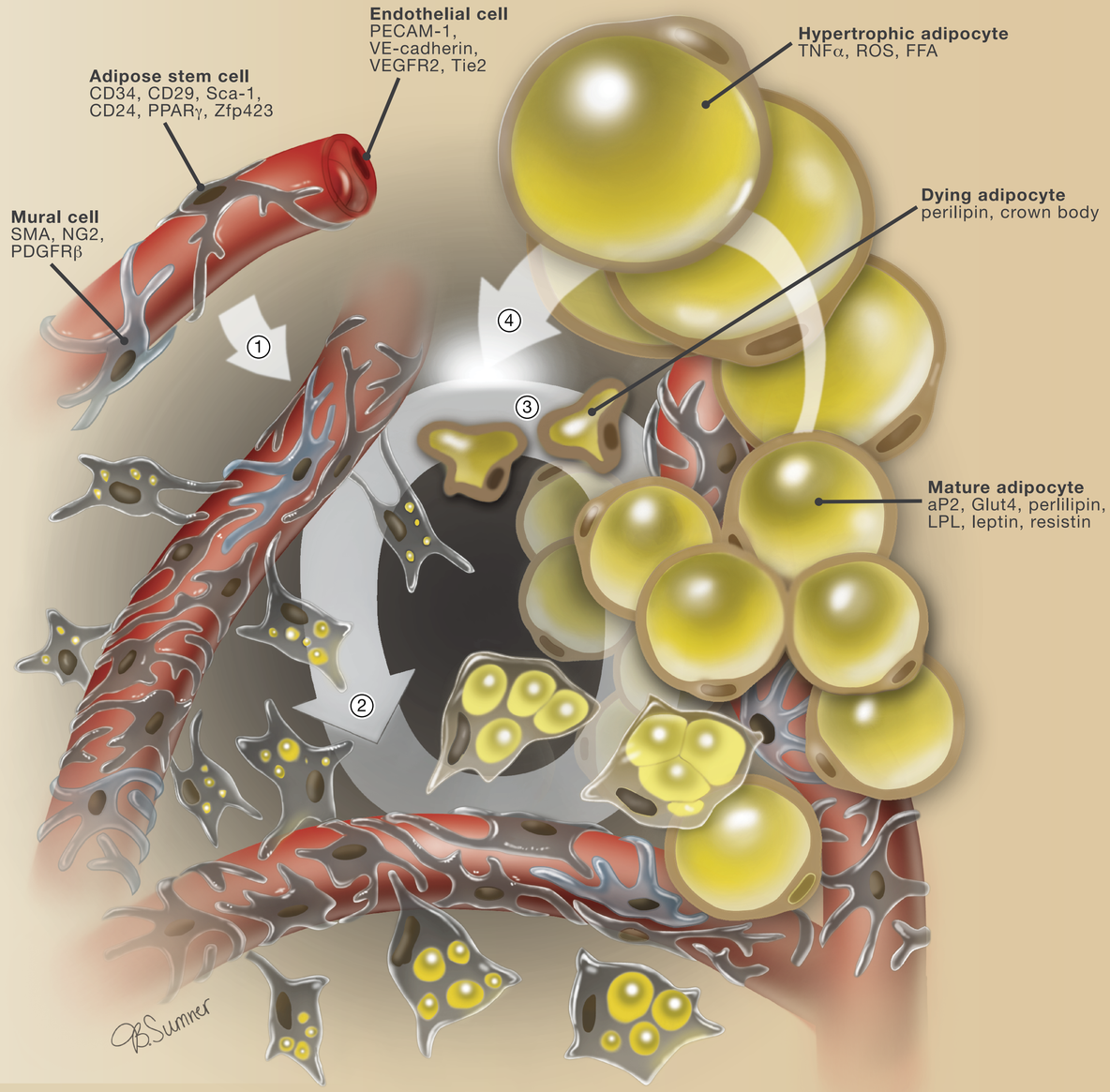
TZDs	Sibutramine
Insulin	Phentermine
Sulfonylureas	Topiramate
Orlistat	

3 ADIPOCYTE TURNOVER

TNFα
IL-6
TZDs

4 ADIPOCYTE OBESIGENIC EXPANSION

High fat diet	Leptin
TZDs	IGF-1
HGF	IGFBP
VEGF	MCSF



Cell

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