

# SnapShot: Adipocyte Life Cycle

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# Cell

## 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	Hormones	
PPAR $\gamma$	TCF7L1	Insulin
C/EBP $\alpha$	pCREB	IGF1
C/EBP $\beta$ , $\delta$	Pref1	Estrogen
KLF5, KLF6	KLF2	Glucocorticoids
Krox20	GATA2/3	Progesterone
SREBP-1c	FoxO1	$\beta$ -adrenergic
STAT5a	FoxA2	Retinoic acid
Zfp423, Zfp467	FoxC2	

Signal transduction	Lipid storage
BMP	CD36
FGF	LPL
PKA	Fatty acid synthase
Wnt	SREBP-1C
Hh	Perilipin
TGF $\beta$	DGAT1
MAPK	ANGPTL4
PDGFR $\beta$	

### Pharmacology

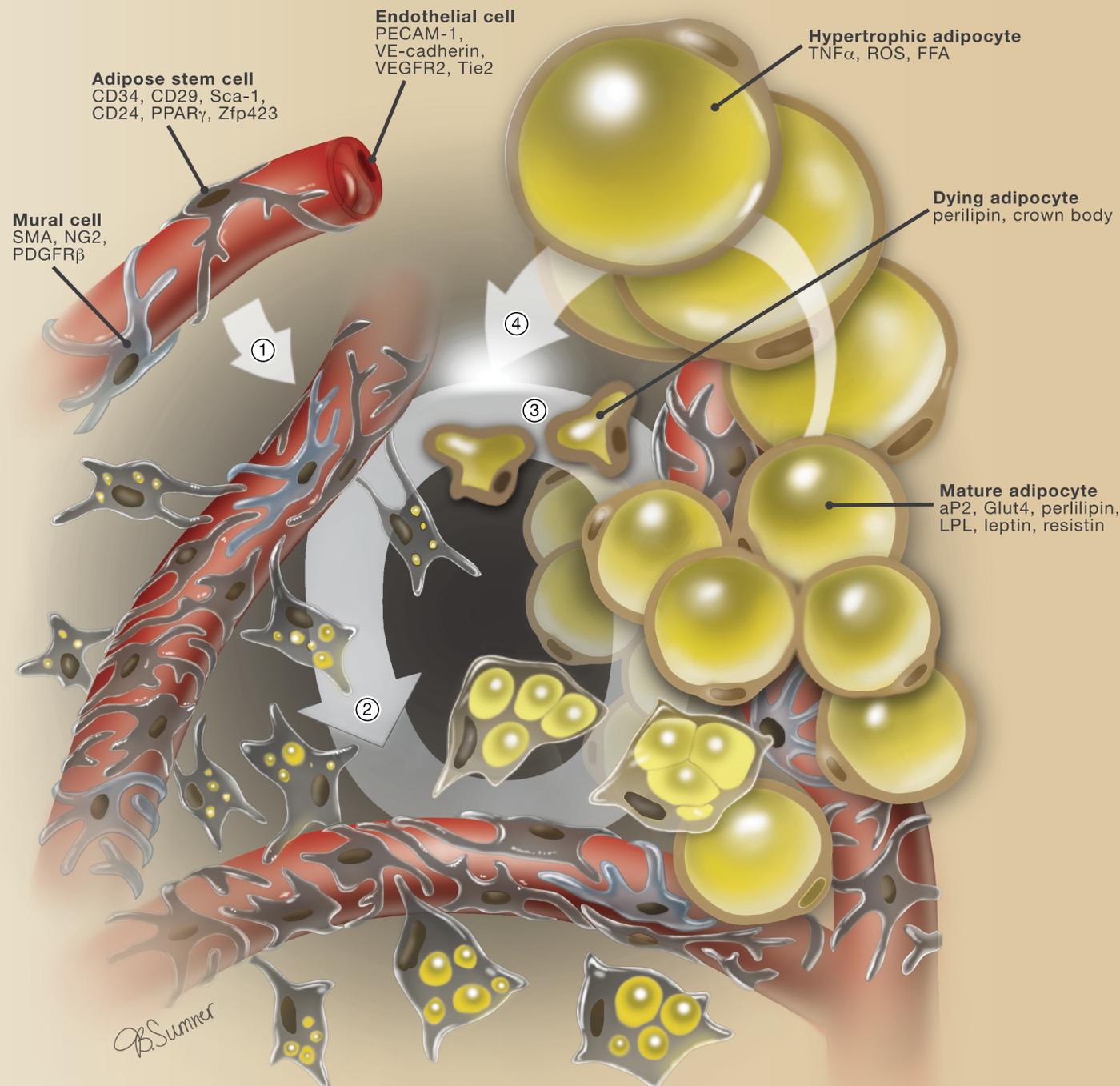
TZDs	Sibutramine
Insulin	Phentermine
Sulfonylureas	Topiramate
Orlistat	

### 3 ADIPOCYTE TURNOVER

TNF $\alpha$
IL-6
TZDs

### 4 ADIPOCYTE OBESIGENIC EXPANSION

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



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DOCUMENT #900094 | VERSION 1.1.0