

HORMONE MEDIATED COVALENT CONTROL OF GLYCOGEN AND TRIACYLGLYCEROL METABOLISM

**FASTING
CONDITION**

**DANGER
CONDITION**

FED CONDITION

glucagon
(liver)

epinephrine
(muscle)

hormones

insulin

MOBILIZE ENERGY

STORE ENERGY

Glycogen Degradation

Glycogen Synthesis

*active
glycogen phosphorylase*

converter
phosphatase

*inactive
glycogen phosphorylase*

(phospho)



(dephospho)

*inactive
glycogen synthase*



*active
glycogen synthase*

(phospho)

converter
kinase

(dephospho)

Triacylglycerol Degradation

Triacylglycerol Synthesis

*active
triacylglycerol lipase*

converter
phosphatase

*inactive
triacylglycerol lipase*

(phospho)



(dephospho)

*inactive
acetyl CoA carboxylase*



*active
acetyl CoA carboxylase*

(phospho)

converter
kinase

(dephospho)