Liver

The liver expresses insulin and glucagon receptors.

The liver stores 10x more glycogen than any other organ in the body.

When insulin receptors are activated in the liver, the liver cells recruit glucose transporters to the cell membrane, to take up blood glucose and store it as glycogen.

When glucagon receptors are activated in the liver, the liver cells start to break down glycogen into glucose to be released into the bloodstream for the rest of the body.

Pancreas

The pancreas is in the abdominal cavity and sits below the liver.

The pancreas is a gland that synthesizes and releases insulin and glucagon.

When blood glucose levels increase (like after a meal) the pancreas senses these increases in blood glucose and releases insulin into the bloodstream.

When blood glucose levels are decreased (like between meals) the pancreas senses these decreases in blood glucose and releases glucagon into the bloodstream.

Negative feedback in the pancreas: When blood glucose levels return to normal, the pancreas will stop secreting insulin or glucagon.
Muscles

Muscles are highly metabolic tissues that require a lot of energy and have large stores of glycogen. Muscles have insulin receptors so that they can take up glucose from the blood and store it as glycogen.

Muscles are highly metabolic tissues that require a lot of energy to contract, thus muscles ALSO have glucagon receptors. The hormone glucagon signals the breakdown of glycogen into glucose for muscles to use.