

QUIZ 2

A patient has been diagnosed with a pathological enlargement of the thyroid gland. The biopsy results show cells of normal size but an increased number. Which of the following statements best describes the biopsy findings?

Answer choices

The thyroid gland has undergone hypertrophy

The thyroid gland has experienced hyperplasia

The thyroid gland demonstrates metaplasia

The thyroid gland shows signs of dysplasia

What is the primary difference between hypertrophy and hyperplasia?

Answer choices

Both hypertrophy and hyperplasia result in an increase in cell number

Hypertrophy involves an increase in cell number, while hyperplasia involves an increase in cell size

Hypertrophy involves an increase in cell size, while hyperplasia involves an increase in cell number

Both hypertrophy and hyperplasia result in an increase in cell size

A patient's muscle biopsy results show an accumulation of autophagosomes. Which molecule is commonly used as a marker to label autophagosomes due to its association with autophagosome membranes?

Answer choices

mTOR

LC3B

Beclin-1

Ubiquitin

A patient with chronic alcohol abuse presents with liver damage. The liver cells have undergone a transformation in which they no longer function optimally and may exacerbate the injury instead of aiding in recovery. This transformation is best described as a:

Transient alteration

Beneficial adaptation

Maladaptive changes

Homeostatic balance

Which of the following best describes cellular adaptation?

A cell's change in structure and or function due to adverse conditions

How cells communicate to ensure tissue-level coordination

A process of every cell undergoes as part of natural

aging A cell's immediate reaction to sudden, acute

damage

What causes the production of reactive oxygen species in an ischemia-reperfusion injury?

Answer choices

Activation of lysosomal enzymes that degrade cellular

components Reduced utilization of glucose by glycolysis

Overactivity of sodium-potassium pumps in the cellular