

CELLS ONLINE WORKSHEET

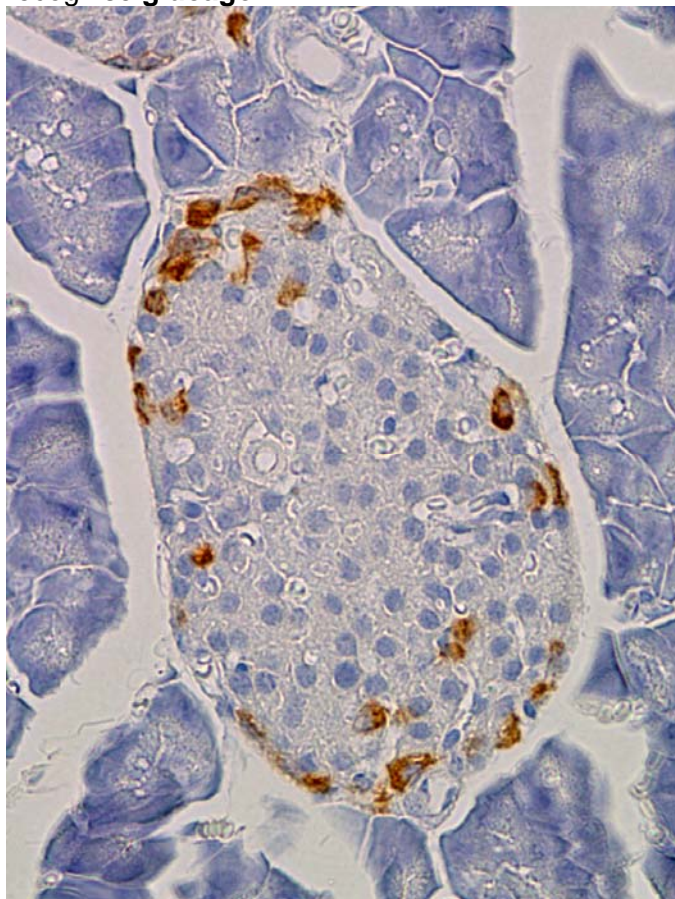
TOPIC

PANCREATIC HORMONE PRODUCING CELLS

The pancreas contains bundles of cells called Islets of Langerhans. These islets contain two hormone-producing cells: alpha-cells that make glucagon and the beta-cells that make insulin. The slides show thin sections of mouse pancreas mixed with antibodies that recognise either glucagon or insulin. Antibodies that bind to the hormones are shown by the brown stain. Sections were photographed under the light microscope at 400x magnification. Each photograph contains one Islet of Langerhans.

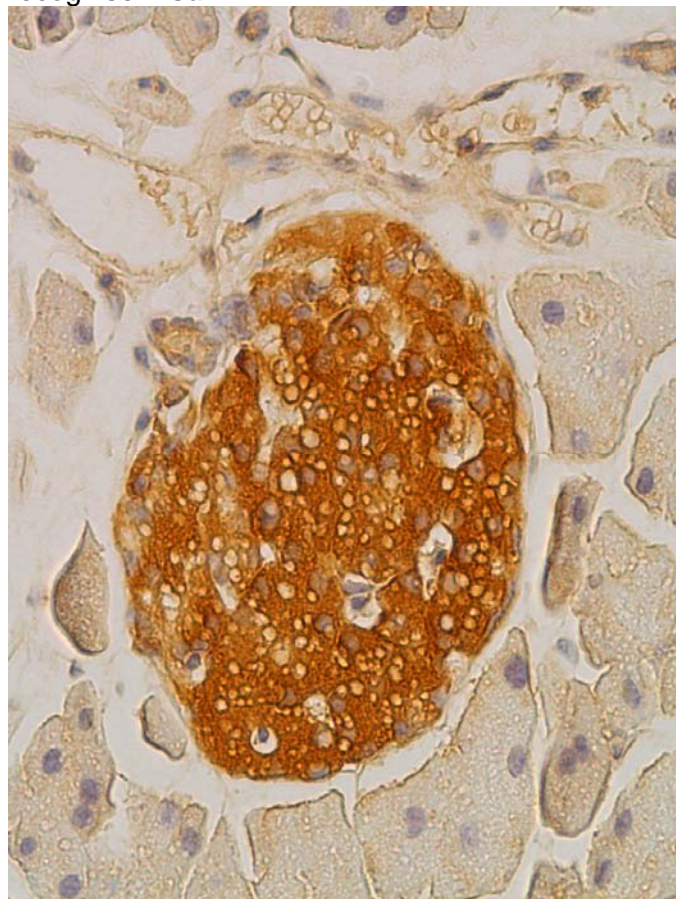
SLIDE A

This slide has been stained with antibodies that recognise **glucagon**.



SLIDE B

This slide has been stained with antibodies that recognise **insulin**.



Download this page, place in your notebook and answer the following questions.

- Q1: On each photograph, circle the group of cells called the Islet of Langerhans.
- Q2: Are there more insulin-producing cells or glucagon-producing cells in mouse islets?
- Q3: Describe the distribution pattern, within the islet, for each hormone producing cell.
- Q4. Explain why you had to view two different slides to see the distribution of both types of hormone producing cells when staining the cells with the antibody.