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Answer these questions to make sure you comprehended the passage.

SCFA and GPR-41 Passage Questions

What molecule is the main subject of the passage and what is its function?

What receptors do SCFAs stimulate?

Are SCFAs agonists or antagonists?

The researchers are trying to study the effects of SCFAs on which organ?

Genes for what receptors were knocked out in mice?

What ligand (hint: a type of SCFA) was administered to the mice?

If the GPR 41 -/- knockout mice have lower expression of tyrosine hydroxylase (TH), how does that affect dopamine production? What about L-DOPA?

How does dopamine affect the contraction of the heart?

How does the change in heart rate over time (look at the slope of the line) differ for the various groups of mice?

What two types of receptors were the researchers testing to see if propionate binds to?

What are the antagonists administered alongside propionate and what receptors do they bind to?

Using the graph, how can you determine which receptor propionate binds to?