

## Quiz 12

Draw arginine.

Arginase catalyzes the reaction of arginine with  $H_2O$  to eliminate urea from its sidechain and leave a primary (terminal) amine called ornithine. Draw ornithine.

In a PLP dependent mechanism, the primary amine of the ornithine sidechain (not backbone) is transaminated to generate glutamate-5-semialdehyde. Draw this product.

The aldehyde of the sidechain of glutamate-5-semialdehyde is taken up one oxidation state to yield glutamate. Draw glutamate.

In a PLP dependent mechanism, glutamate is transaminated. Draw the product of this reaction.

Where does the product of the last step fit into the larger scheme of metabolism?