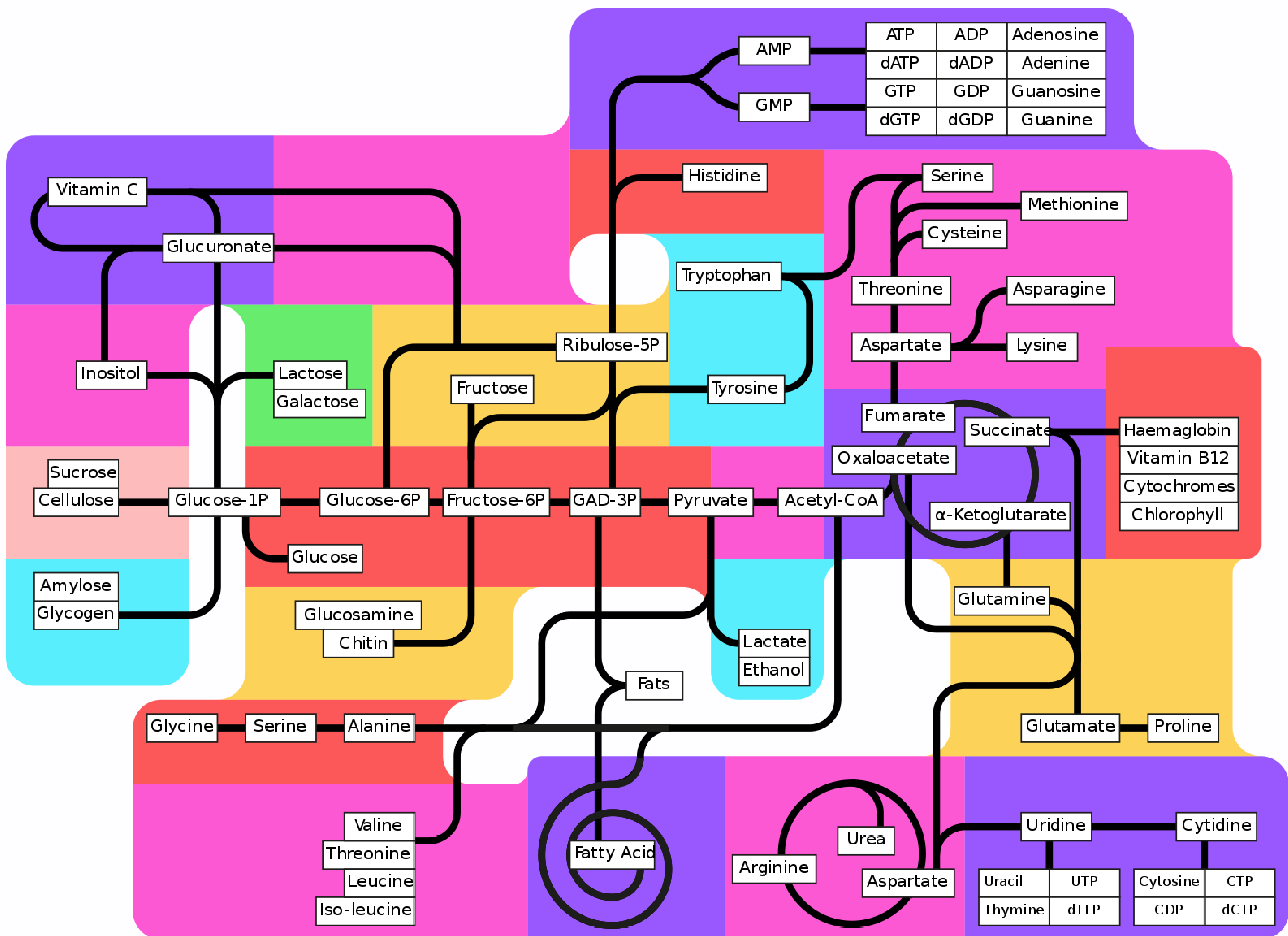


In biochemistry, a metabolic pathway is a linked series of chemical reactions occurring within a cell. The products of one reaction feed the next, and so on until the chain is finished. Pathways are often said to 'flow' in one direction. Often the end result of one pathway will be acted upon by another pathway. An example of this is when an amino acid is built by one pathway but broken down by another.

## Example of metabolic pathways



## Why are pathways important?

Researchers in drug discovery often target pathways because they are crucial to keeping cells alive. If a medicine can stop a pathway it may be able to kill the cell, and therefore the parasite, stopping the disease in its tracks!

Researchers at the University of Dundee have discovered lots of fascinating pathways in parasites over the years.

## What's the catch?

It's not just parasites that have these pathways – all living things do, including us. If a human takes a medicine that disrupts a parasite's pathway there's a good chance it will affect the human's pathway too and make them ill – or worse!

The trick for scientists is to find pathways that the parasite has but we do not. That way the parasite can be safely targeted, and the human is unaffected.