

## C IS FOR CELL

If atoms are the building blocks of the Universe, then cells are the building blocks of life. A long, long, long time ago, when the first things we'd class as being alive (see 'L') started wriggling around in the sea, they didn't have cells at all. They were just strings of amino acid, not doing very much at all.

But then some of these strings started looping round into balls, with an inside and an outside. And soon after that, the ones that hadn't yet become balls realised that they survived better if they hung about *inside* the ball-shaped living things. And the balls didn't mind much, because the little things inside them could give them energy and help *them* to survive better too. And these became the first cells. Soon there were lots of little tiny things living inside each cell – these days we call them organelles – and each organelle had a different task.

Eventually even ball-shaped living things started living inside other ball-shaped living things, and these smaller balls became what we call the cell's nucleus. And all types of life that hadn't yet started living inside cells died out, because they weren't well-protected enough.

And that's how it stayed for a very long time – possibly billions of years. The only type of life on Earth consisted of just a single cell. But then something incredible happened. Some cells started living in a state where they were constantly stuck to another cell, or perhaps several cells. There were lots of advantages to living together in this way, so the groups of cells got bigger and bigger. These were the first multicellular organisms, of which humans are an example. The adult human body has a little under 40 trillion cells.

There are still lots and lots of single-celled organisms in the world, but they're too small to see with the eye. The best-known examples are bacteria.

I borrow two musical styles beginning with 'C' in this song, both of which originated in the Caribbean islands of Central America. Calypso was invented by African slaves on the island of Trinidad. These people came from lots of different parts of Africa, and didn't speak the same language, so they used music as a way of communicating, and for making fun of their slave-drivers.

Conga is a form of street dance that started in Cuba, though the name originally meant the type of drum that was used. The form of the dance that I use in the show is strictly speaking called the 'conga line', which is a party dance that became popular in Europe and the USA in the 1930s.

