

# EVERY BODY'S MADE FROM CELLS

by Arthur W. Siebens, Ph.D., Copyright 1995

Every body's made from cells  
Got to be small to do their job well  
Your body's made of millions, a *Euglena's* made of one  
Some cells eat others, others just lie in the sun.

The cell membrane covers the outside like a skin  
It keeps the bad out, lets the good stuff in  
Inside the cell membrane's the cytoplasm  
Full of organelles--if you're a eukaryote, you has 'em.

The nucleus commands and controls  
The lysosome digests cell parts when they're old  
But the cell wouldn't work, it just couldn't run  
Without the power released by the MIGHTY MITOCHONDRION!

Yes, the mitochondrion's got that peanut look  
The energy it releases makes the rest of the cell "cook"  
It takes the energy from glucose\*, makes ATP  
So that muscle cells contract and white cells can fight disease.

Digestive enzymes are made in the pancreas on ribosomes  
Then they're transported through the endoplasmic reticulum  
To the Golgi where they're packed in a bubble (secretory vesicle),  
To keep them out of trouble  
But when you eat, they're released on the double  
To turn your food into monomer rubble!

Now plant cells have structures animal cells lack  
Cell walls, large vacuoles and chloroplasts  
Starch is stored in leucoplasts in a potato  
The red comes from chromoplasts in a tomato  
With all those organelles hummin', a cell runs like an organized tornado.

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\* The glucose (6 carbons) is first broken down to 2 pyruvic acid molecules (3 carbons) in the cytoplasm in glycolysis.  
The pyruvic acid then enters the mitochondrion and its energy is used to make ATP in cellular respiration.