

Dr. Key

Cell Doctor for a Day

The setting: Cellular General Hospital, world-famous medical center for cells. Here the staff works tirelessly, night and day, treating cells that suffer from mysterious ailments. Finding the cure to these strange illnesses might baffle ordinary mortals, but the cell doctors keep their cool. They know that each patient is missing a vital organelle. All they must do now is figure out which cell part is lacking.

Possible Missing Organelles			
Nucleus	Chloroplast	Cytoskeleton	Goigi Complex
Ribosome	Cytoplasm	Lysosome	Mitochondria
Centrioles	Endoplasmic Reticulum	Cell Membrane	Vacuole

- "No matter what I eat, I'm malnourished, Doc. I just can't *digest* anything. I absorb food molecules of any size, but they just float around inside me, and never *breakdown*."
MISSING ORGANELLE: lysosome
- "Thank goodness you're here! My organelles keep banging into one another. I sound like a junk yard, and every time I see one of those Bill Cosby commercials for jell-o, I get very, very thirsty."
MISSING ORGANELLE: cytoplasm
- "Doctor, I feel totally run down. I eat plenty of food, and get enough oxygen, but I still have no zip."
MISSING ORGANELLE: Mitochondria
- "I'm not living a full life, doctor. I try and try to *reproduce*, but I just can't divide."
MISSING ORGANELLE: centriole
- "Doc, I'm completely out of shape. I can't stand up straight. I'm just a big limp bag of cytoplasm."
MISSING ORGANELLE: cytoskeleton
- "I can't seem to get it together, Doc. Stuff moves *in and out* of me at will. Last night, some enzymes wandered in and went to town on my nucleus. This morning, my mitochondria tried to run off with my endoplasmic reticulum. What's going on?"
MISSING ORGANELLE: cell membrane
- "Doc, I am totally out of control! Things happen inside of me and I just can't seem to figure out what's going on. Help me!"
MISSING ORGANELLE: nucleus
- "Doc, I just can't seem to build up any proteins from my amino acids. I'm just lacking in muscle tone, flabby and limp. I take all kind of amino acid supplements, but just can't seem to *synthesize any polypeptides*."
MISSING ORGANELLE: ribosome
- "I work with the ribosomes to make proteins, but just can't seem to *move'em* through my cytoplasm. My proteins just sit around and build up. Help me, Doc. I gotta *move'em*."
MISSING ORGANELLE: endoplasmic reticulum
- "I tell you Doc, I am *thirsty and hungry*! I make all kinds of water and store all kinds of food, but I come back the next day to find that they're gone. I need this water and this food to live. What can I do?"
MISSING ORGANELLE: vacuole
- "I'm having a lot of trouble *packaging proteins* and other materials to build a membrane. If I don't get better, I am going to have to call in the Federal Express or UPS!"
MISSING ORGANELLE: Goigi complex
- "Doc, I just want to be *green* again. I've lost all of my color. Now instead of being bright green, I'm just kind of washed out and gray. I'm just not making any more carbohydrates, either."
MISSING ORGANELLE: chloroplast

How many patients did you save? ☺