

## *Domains of Life; Prokaryotic vs. Eukaryotic Cells: Do any Bacteria have membrane-bound organelles?*

The answer to that question is that for the purposes of MCB 150, no they don't. But as we'll find with many of the topics we introduce in this class, it's not really that simple. There are some minor exceptions to that rule. There is at least one species of bacteria that has a clearly membrane-bound structure inside it called an acidocalcisome (I think that's how it's spelled). This organelle was actually discovered by another U of I researcher down in the Veterinary Pathobiology department named Roberto Docampo. But considering that there are an almost innumerable number of bacterial species on the planet, this is obviously a minor (albeit important for that bacterium) exception to the rule. But let me reiterate for everyone, for this class, if you are asked if bacteria have organelles, the answer is "no." Unless I clearly mention an exception, we're going with the rule, and the rule is that prokaryotes lack membrane bound organelles.

*Unique solution ID: #1095*

*Author:*

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