

Video: Inside the quest to truly understand the living cell

“I would be happy to have a rudimentary understanding of a single cell.”

That doesn't sound like a shocking statement, but coming from a [Nobel-prize-winning microscopist](#) who has spent most of his career trying to peer into the tiny powerhouses of life, it really is.

[Eric Betzig](#) knows how deep the mystery of the cell goes. He's been trying to catch it in the act of normal life for decades with his microscopes. But few in this world have actually glimpsed the cell as it really is.

“Much of what we've learned has been by looking at cells in isolation, and even if the microscope is non-perturbative, the fact that you ripped the cell out of its normal happy environment means it's unlikely that you're seeing it in its native form,” Betzig said during a recent interview in his lab at [Janelia Research Campus](#) in Ashburn, Va.

But he's managed to change that by getting closer to [spying the undisturbed cell](#) than nearly anyone. Betzig is, in a way, an inner space astronaut. And what he has seen amazes — and depresses him.

Watch the video [below] to find out just why that is.

Read full, original post: [WATCH: The pleasure and pain of seeing inside living cells](#)