



Fantastic Voyage

Rods and rings are mysterious subcellular structures identified just a few years ago by scientists studying how cells respond to antiviral drugs, such as those used against hepatitis C.

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1 COLOR CODED

These are mouse embryonic fibroblasts stained for microtubules (turquoise), nuclei (orange), and rods and rings (light green).

2 DISCOVERY

The rods and rings appear to contain enzymes that cells use for synthesizing DNA building blocks. Patients treated with some antiviral drugs develop antibodies against these enzymes.

3 IMAGING

This image is a "z-stack projection" acquired using the Olympus FV1000 microscope in Emory's Integrated Cellular Imaging Core.