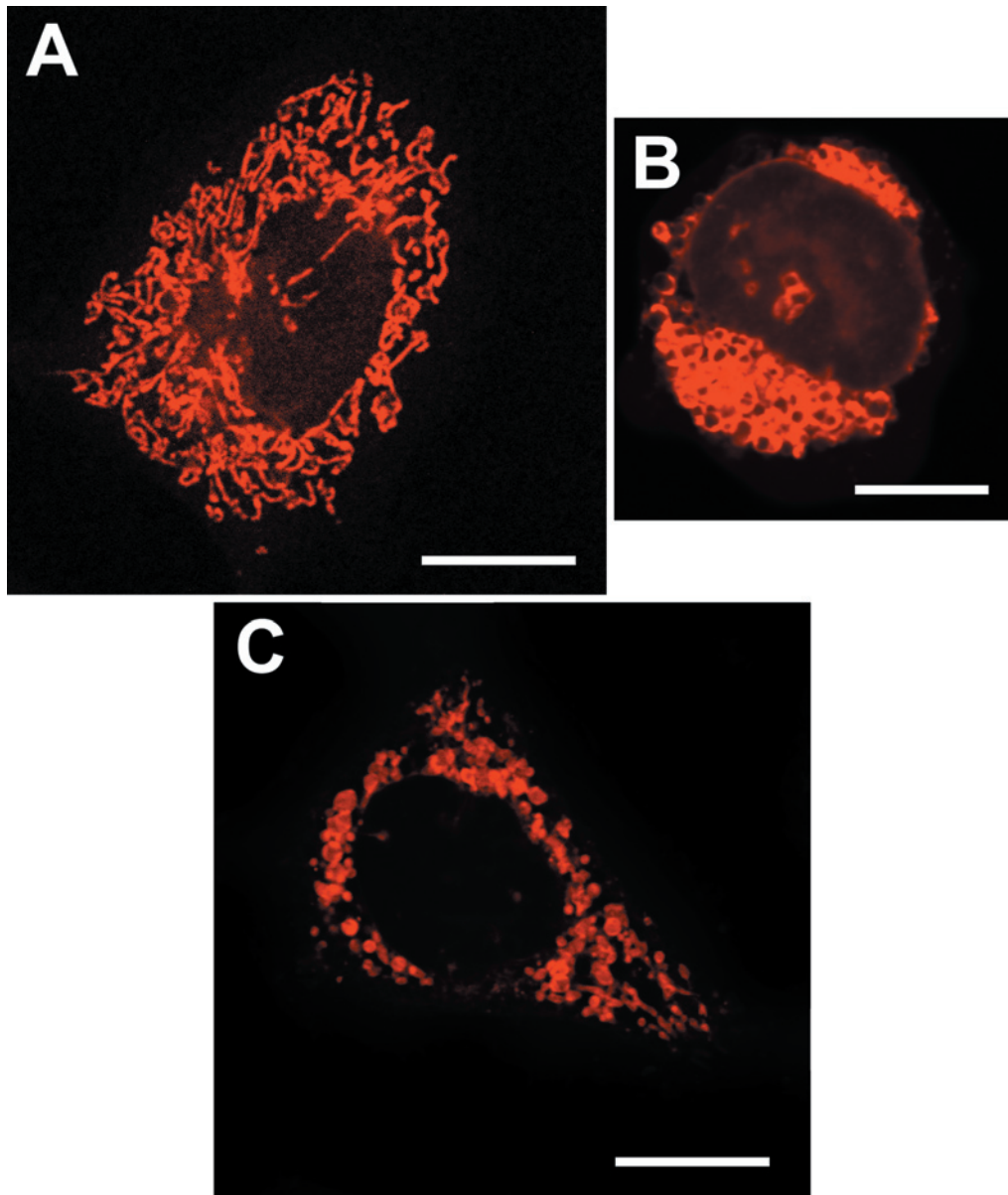


Photogravure

Various Morphologies of Mitochondria

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Living human culture cells were stained with a mitochondria specific fluorescent dye, MitoTracker Red. (A) a HeLa cell (B) a Jurkat cell (C) a cybrid cell that contains the HeLa nucleus and mitochondria with pathogenic mutant mitochondrial DNA (mtDNA) from a patient with mitochondrial disease. Bars, 20 μ m.

Note that mitochondrial morphology depends on the nucleus that determines a cell-type (compare A with B) and mtDNA (compare A with C) The HeLa nucleus is common in A and C, but their mtDNAs are different from each other. The pathogenic mutation in mtDNA leads to swollen and spherical structures (C)