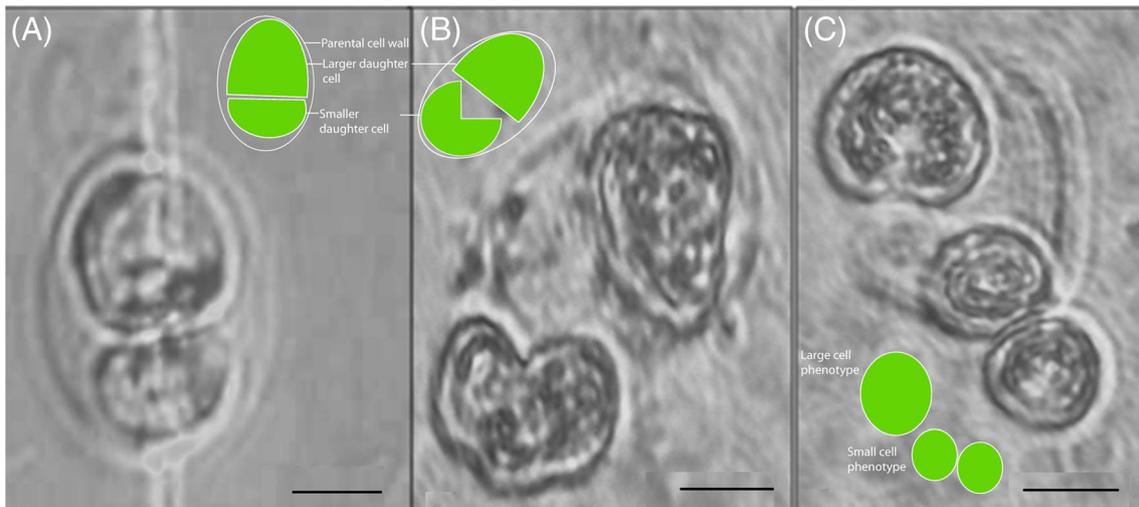


Asymmetric cell division and its role in cell fate determination in the green alga *Tetraselmis indica*

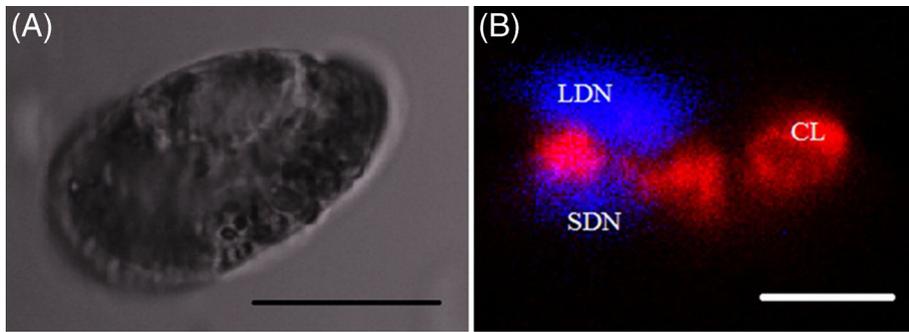
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J. Biosci. 40(5), December 2015, 921–927, © Indian Academy of Sciences

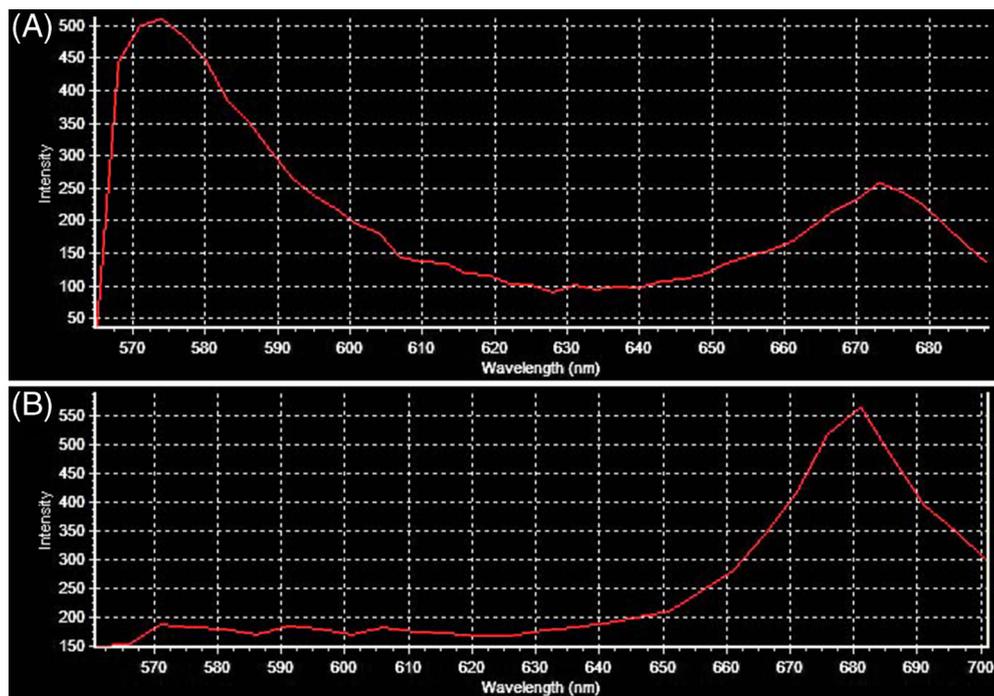
Supplementary material



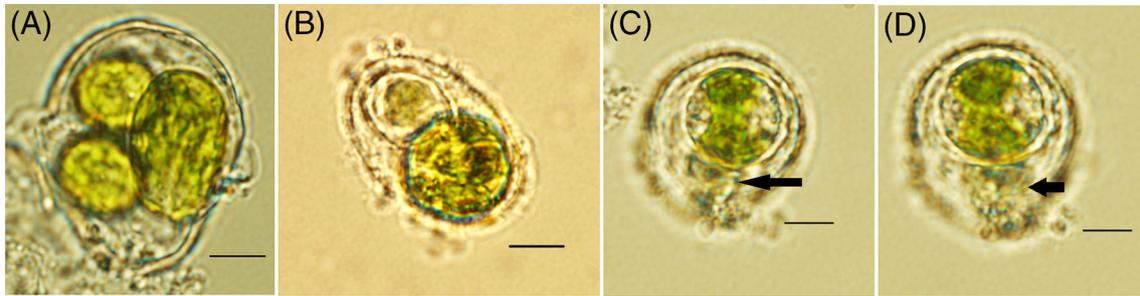
Supplementary figure 1. Light micrograph of an asymmetrically dividing *T. indica* cell at various time intervals. Progress over a 12 hr period, showing that the larger component does not undergo further division. (A) 0 h, cell division at an early stage. (B) 5 h, lower half of cell undergoing further division. (C) 12 h, differentiated phenotypes in terms of cell size. Scale bars: 10 μ m.



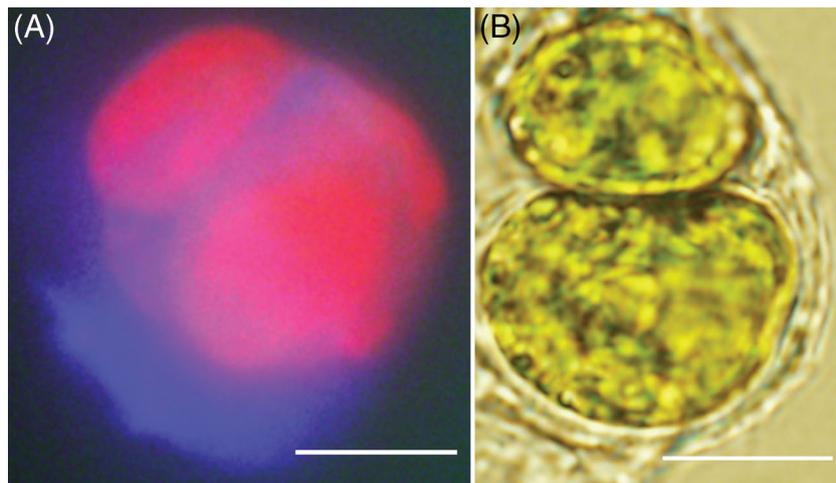
Supplementary figure 2. (A) DIC image of a cell at an early stage of division. (B) Confocal laser scanning micrograph of a cell passing through the X-Z plane at an early stage of cell division demonstrating the unequal partitioning of nuclear material; comparatively more nuclear material is going to a predestined region. Scale bars: (A) 22.71 μm ; (B) 11 μm .



Supplementary figure 3. Absorption peaks of individual cells showing the variation in absorption maxima and hence pigment differences of different types of daughter cells. (A) L cells always demonstrate a major peak in the range of accessory pigments, whereas (B) S cells yield only a single peak in the range of chlorophyll *a*.



Supplementary figure 4. (A) Control. (D) Unequal division products demonstrating differential resistance to temperature stress. The smaller daughter cell gradually lost its contents through lysis under unfavourable environmental conditions. Scale bars: 10 μm .



Supplementary figure 5. Fluorescence and Light micrograph showing Hoechst staining and efflux of the stain by the bigger division product indicating that certain cells are resistant to its toxicity and can efflux or exclude the stain; however, whether this efflux is due to active transporters is not yet understood. Scale bars: 10 μm .