

*Mini-opinion*

## **From unicellularity to multicellularity - molecular speculations about early animal evolution**

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Genet. Mol. Res. 7 (1): 50-59 (2008)

Received August 9, 2007

Accepted December 5, 2007

Published January 22, 2008

**ABSTRACT.** A morphological, physiological, developmental, and genetic organization of great complexity ineluctably unfolded from relatively simple phenomena invested with enormous potential. Sometime long ago in the Proterozoic times, parasitic invasions caused lower evolutionary levels to integrate into higher-level selection. Therefore, we have a multi-level selection problem that ultimately revolves around the question of how natural selection among lower-level units acts to create higher-level units of selection, in which Darwinian competition among replicators ceases to be the foremost force. The first level relinquishes its independence for the benefit of a higher-level cooperative force that is now the criterion of fitness for the new transition in the evolutionary process.

**Key words:** Parasitic invasions; Higher-level selection;  
Biological evolution