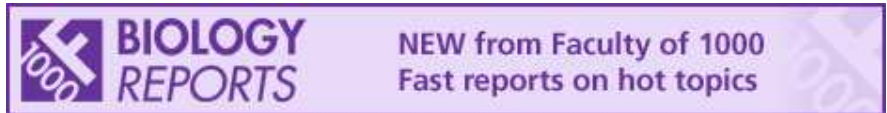


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Amazingly, the number of protein molecules in a large functional complex can now be counted in vivo.

The authors expressed the individual proteins of the *Escherichia coli* replisome in fusion with YPet (a bright version of green fluorescent protein [GFP]) and counted the molecules by the intensity and step-wise bleaching observed by single-molecule fluorescence microscopy in living cells. Unexpectedly, the count of the replisome subunits epsilon, theta, tau, delta, chi, psi, beta and Ssb revealed three subunits of the polymerase III core (alpha, epsilon and theta), rather than two that had traditionally been assumed to perform the replication of leading and lagging strand DNA.

Competing interests: None declaredEvaluated 10 May 2010 **NEW**[How to cite this evaluation](#)

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