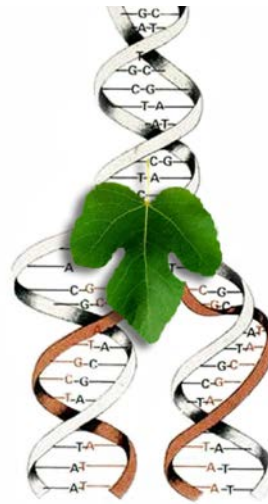




## A peek at the eukaryotic replisome and its amazing function and structure



The eukaryotic replisome utilizes an 11-subunit CMG helicase and three different multiprotein DNA polymerases, along with a myriad of other proteins. We have purified the factors necessary to reconstitute leading and lagging strand synthesis *in vitro*. The lessons learned reveal mechanisms unprecedented in bacterial systems. We have also examined the structure of replisomal structures by 3D EM reconstruction, and these images and their possible implications to function will be discussed.

### Dr. Michael O'Donnell

Investigator, Howard Hughes Medical Institute  
Anthony and Judith Evnin Professor  
Laboratory of DNA Replication  
The Rockefeller University

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Host: Dr. Barbara Funnell

**Date:** Monday December 1<sup>st</sup>, 2014  
**Time:** 4PM  
**Place:** Fitzgerald Building, 150 College Street, Room 103