1020-92-157   **Mariel Vazquez*** (`mariel@math.sfsu.edu`), Mathematics Department, 1600 Holloway Ave, San Francisco, CA 94132, and **David J Sherratt** (`david.sherratt@bioch.ox.ac.uk`), Biochemistry Department, South Parks Rd, Oxford, OX1 3QU, England. *Efficient DNA decatenation by Xer system of recombination.* Preliminary report.

FtsK depenndent XerC/D proteins have been shown experimentally to unlink DNA chains very efficiently. We here analyze the possible pathways and mechanisms of action needed to account of the experimental data. Our analysis is based on the tangle method for site-specific recombination. (Received August 25, 2006)