

1. Record Nr.	UNISALENT0991003367259707536
Autore	De Giorgi, Fulvio
Titolo	Approfondire il Novecento : temi e problemi della storia contemporanea / a cura di Fulvio De Giorgi
Pubbl/distr/stampa	Roma : Carocci, 2001
ISBN	8843020382
Descrizione fisica	235 p. ; 22 cm.
Collana	Università ; 348 Università. Studi storici
Disciplina	909.82
Soggetti	Storia moderna e contemporanea Storia universale
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr.	UNINA9910298281103321
Autore	Glinkowska Monika
Titolo	DNA Replication Control in Microbial Cell Factories / / by Monika Glinkowska, Lidia Boss, Grzegorz Wegrzyn
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-10533-7
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (56 p.)
Collana	SpringerBriefs in Microbiology, , 2191-5385
Disciplina	572.8/645 579
Soggetti	Microbiology Cytology Applied Microbiology Cell Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction.- Coordinating duplication of genetic material with cell growth – current views and old questions.- Structural organization of cellular processes and the regulation of cell cycle -- The link between metabolism and DNA replication -- Transcriptional activation – the unsolved problem -- Activity of DnaA is inhibited by components of translation machinery -- Nucleoid-associated proteins modulate activity of the DnaA initiator -- Interaction of DnaA with acidic components of fluid cellular membrane regulates its nucleotide-bound status and binding to oriC -- Influence of DNA replication on cell structure and function -- Conclusions.
Sommario/riassunto	This work describes the current knowledge of biochemical mechanisms regulating initiation of DNA replication in <i>Escherichia coli</i> , which focuses on the control of activity of the DnaA protein. Examples of direct linkages between DNA replication and other cellular processes are provided. In addition, similarities of the mechanisms of regulation of DNA replication operating in prokaryotic and eukaryotic cells are identified, and implications for understanding more complex processes, like carcinogenesis are suggested. Studies of recent years

provided evidence that regulation of DNA replication in bacteria is more complex than previously anticipated. Multiple layers of control seem to ensure coordination of this process with the increase of cellular mass and the division cycle. Metabolic processes and membrane composition may serve as points where integration of genome replication with growth conditions occurs. It is also likely that coupling of DNA synthesis with cellular metabolism may involve interactions of replication proteins with other macromolecular complexes, responsible for various cellular processes. Thus, the exact set of factors participating in triggering the replication initiation may differ depending on growth conditions. Therefore, understanding the regulation of DNA duplication requires placing this process in the context of the current knowledge on bacterial metabolism, as well as cellular and chromosomal structure. Moreover, in both *Escherichia coli* and eukaryotic cells, replication initiator proteins were shown to play other roles in addition to driving the assembly of replication complexes, which constitutes another, yet not sufficiently understood, layer of coordinating DNA replication with the cell cycle.
