

1. Record Nr.	UNINA9910220034503321
Autore	Antonio Porro
Titolo	Grappling with the Multifaceted World of the DNA Damage Response
Pubbl/distr/stampa	Frontiers Media SA, 2017
Descrizione fisica	1 online resource (306 p.)
Collana	Frontiers Research Topics
Soggetti	Genetics (non-medical)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>DNA damage is a major threat to genomic integrity and cell survival. It can arise both spontaneously and in response to exogenous agents. DNA damage can attack most parts of the DNA structure, ranging from minor and major chemical modifications, to single-strand breaks (SSBs) and gaps, to full double-strand breaks (DSBs). If DNA injuries are mis-repaired or unrepaired, they may ultimately result in mutations or wider-scale genome aberrations that threaten cell homeostasis. Consequently, the cells elicit an elaborate signalling network, known as DNA damage response (DDR), to detect and repair these cytotoxic lesions. This Research Topic was aimed at comprehensive investigations of basic and novel mechanisms that underlie the DNA damage response in eukaryotes.</p> <p>DNA damage is a major threat to genomic integrity and cell survival. It can arise both spontaneously and in response to exogenous agents. DNA damage can attack most parts of the DNA structure, ranging from minor and major chemical modifications, to single-strand breaks (SSBs) and gaps, to full double-strand breaks (DSBs). If DNA injuries are mis-repaired or unrepaired, they may ultimately result in mutations or wider-scale genome aberrations that threaten cell homeostasis. Consequently, the cells elicit an elaborate signalling network, known as DNA damage response (DDR), to detect and repair these cytotoxic lesions. This Research Topic was aimed at comprehensive investigations of basic and novel mechanisms that underlie the DNA damage response in eukaryotes.</p>

