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Sommario/riassunto	Because of their large-scale manufacture and widespread application, several studies related to the toxicological assessment of nanomaterials (NMs) have been conducted over the past decade. Notwithstanding the extensive research on the cytotoxicity of NMs, their possible genotoxicity is of concern due to their increased utilization. As explained in one of the reviews included in this Special Issue, the number and quantity of nanomaterials is ever increasing and affecting the environment where humans, bacteria, and plants live, and their genome come in contact with nanomaterials. Although the topic of genotoxicity induced by nanomaterials is important, we had only five contributions for this Special Issue. A minireview on the methods used to analyze genotoxicity in plants; a review on the direct and indirect genotoxicity of Graphene Family Nanomaterials on DNA; a research paper on the effects of single and repeated applications of Cerium Oxide Nanoparticles on the growth and biomass of the wild plant Silene flos-cuculi L. (Caryophyllaceae); another research paper on proteomics of Cadmium Sulfide Quantum Dots in Arabidopsis thaliana wild type and tolerant mutants; a research paper on the capacity of Graphitic Carbon Nitride (C3N4) to reduce Cd and As phytotoxicity and accumulation in Rice.