
Preface

When invited to work on, design, and edit a book on “Genotoxicity and DNA Repair,” our goal was to compile a volume that would provide a reference for determining how to analyze the genotoxic activity of molecules or materials and, at the same time, serve as a practical tool for researchers in the Environmental Mutagenesis and DNA Repair fields.

Because of this, we have focused on genotoxicity assays recommended by the “OECD guidelines for the testing of chemicals,” presenting both theoretical information and updated standard protocols, as well as modified protocols that could be of use in specific situations. In addition, we have also covered other assays not included in the OECD guidelines but of proven usefulness in the field, such as gene mutation assays, the comet assay—in different species and applications—and the SMART assays in *Drosophila*. Throughout the book, special emphasis is placed on the analysis of nanoparticles and nanomaterials.

With respect to DNA repair, we have included several assays that give information on repair activity in vitro and recent applications to study repair in humans. This part does not set out to be exhaustive, but aims to be of help when the analysis of DNA repair is necessary.

We were fortunate enough not only to obtain the approval of the publisher, but also and especially to secure the interest and commitment of relevant scientists in the field who agreed to write the different chapters. We thank all of them heartily for their support, their patience with our questions and requests, and their excellent work.

We hope that you will enjoy the result and find it as useful as we intended it to be.

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