



## Advances in Molecular Cytogenetics Volume II

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### Message from the Guest Editor

Dear Colleagues,

Since its origin many decades ago, classical cytogenetics has been a crucial tool in the life sciences. During this time, technical advancements have been made and applied in both research and diagnostics. In medicine, the obtained results are universally well-known and appreciated.

Cellular biology improved our knowledge on the nucleus, nucleolus, chromosomes, and chromatin, and the advent of molecular cytogenetics confirmed the necessity of continuing these efforts to deepen our knowledge of the molecular bases of genetic diseases.

The aim of this Special Issue is to describe the state of the art of cytogenetics and cytogenomics, as well as identify their future evolutions.

The main topics that will be covered are:

- The role of conventional cytogenetics in the cytogenomic era;
- Metaphase and/or interphase FISH in the cytogenomic era;
- The role of chromosomal microarrays in prenatal and postnatal diagnoses of structural abnormalities;
- Detection and clinical interpretation of copy number variants;
- Next-generation sequencing in cytogenetics;
- Optical genome mapping in cytogenetics;
- Three-dimensional genomics and chromosomal disorders;



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# Special Issue



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