



## Tumor Heterogeneity and Resistance to Cancer Therapies

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### Message from the Guest Editor

Dear Colleagues,

The sequences of cancer genomes and the development of oncogene-specific inhibitors have transformed the clinical treatment of cancer patients into what is commonly known as precision or personalized medicine.

However, it's widely known that each tumor contains a "private" collection of molecular alterations, few of which are shared between patients with the same histopathological subtype. The critical role of molecular heterogeneity and clonal evolution in the clinical outcomes of cancer patients leads to many clinical and scientific needs:

- Clinical trials, novel technologies and biomarker studies providing accurate molecular maps of individual tumors and longitudinal analyses of tumor evolution during therapeutic treatment.
- Preclinical models of patients' specific disease allowing the rapid identification of the most effective personalized therapy.
- The identification of common (trunk) cell vulnerabilities suitable for therapeutic targeting.
- Innovative therapeutic strategies able to overcome the challenges posed by tumor heterogeneity and to prevent clonal evolution.





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