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## Drug Resistance in Cancers

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### **Message from the Guest Editor**

Dear Colleagues,

Cancer is among the leading causes of mortality in Canada. Despite advances in treatment in all settings, disease recurrence and progression remains a major obstacle to therapy. One of the main clinical issues is the development of drug resistance. Drug resistance exists in two forms: Acquired resistance, where the drug is initially efficient but becomes ineffective over time, while intrinsic resistance occurs when a drug is ineffective from the beginning of treatment. The hallmarks of drug resistance in cancers include sustained tumor cell proliferation, insensitive to growth suppressors, resisting cell death, and active invasion. The most established in vitro mechanism for resistance to more than one chemically unrelated class of agents (multidrug resistance) is the overexpression of drug efflux proteins, such as ATP-binding cassette. Resistances may also arise that are specific to one group of drugs. Understanding the mechanisms underlying drug resistance and the development of novel therapies are key to overcoming drug resistance.

Prof. Dr. Zhixiang Wang  
*Guest Editor*



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# Special Issue



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## Message from the Editor-in-Chief

*Cancers* is an international online journal addressing both clinical and basic science issues related to cancer research. The journal is publishing in Open Access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

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