ABSTRACT

METHODS FOR PROVIDING PERSONALIZED MEDICINE TESTS EX VIVO FOR HEMATOLOGICAL NEOPLASMS

Described herein are methods, devices, and compositions for providing personalized medicine tests for hematological neoplasms. In some embodiments, the methods comprise measuring the efficacy of inducing apoptosis selectively in malignant cells using any number of potential alternative combination drug treatments. In some embodiments, the ex vivo testing is measured using a recently extracted patient hematological samples. In other embodiments, the efficacy is measured ex vivo using an automated flow cytometry platform. For example, by using an automated flow cytometry platform, the evaluation of hundreds, or even thousands of drugs and compositions, can be made ex vivo. Thus, alternative polytherapy treatments can be explored. Non- cytotoxic drugs surprisingly induce apoptosis selectively in malignant cells ex vivo. In some embodiments, the methods described herein comprise evaluating non-cytotoxic drugs.

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