COLORECTAL-CANCER-PATIENT-DERIVED XENOGRAFTS

RESEARCH TOOLS & REAGENTS

This mouse model of patient-derived colorectal cancer xenografts, when implanted into the most physiologically relevant areas allows for enhanced and personalized drug development and treatment.

TECHNOLOGY SUMMARY

Colorectal cancer (CRC) leads to almost 50,000 deaths in the United States annually. CRC treatment require patients to undergo tumor resection and, in later stages, chemotherapy. Early-stage progression of CRC and risks associated with chemotherapy, however, have caused physicians to question the benefits of chemotherapy in stage II patients. A novel model of CRC tumors allows for testing of drug efficacy prior to treatment. Using a patient-derived CRC tumor, a xenograft is implanted into an immune-deficient mouse in the most physiologically-relevant location. This implantation creates a personalized and high-fidelity model of that person’s tumor. Accurate patient-derived models can be used to determine the most effective treatment method for individual patients. These models are also serially propagatable, creating ample opportunities for research, drug testing, and development of new therapies.

FEATURES AND BENEFITS

- Enables personalized, high-fidelity treatment plans to enhance patient outcomes.
- Retains the histopathology and genomic landscape of original tumor to facilitate in vivo drug efficacy tests.
- Demonstrates potential for use in research, drug screening, and treatment planning.

RECENT PUBLICATIONS


INVENTOR PROFILE

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