Validation of anti-cancer agents in patient-derived canceroids

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Pharma

Oncology

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Track 1

SUMMARY

Members of the family of signaling RAS-GTPases are frequently mutated in cancer, causing > 1 million deaths worldwide annually by triggering tumor pathogenesis and conferring resistance to therapies. Currently, compounds targeting the Ras-signaling pathway are in preclinical and clinical testing. However, these lead drugs show uncertain long-time effects.
Targeting transcriptional hubs downstream of RAS has the potential to block malignancy and therapy resistance. The project aims to validate modulators of a RAS-responsive transcription factor: Compounds identified via high-throughput-screening on an approved-drug library are validated in patient-derived canceroids. This strategy has the potential to establish a new concept of anti-RAS mono- or combinatorial therapy.

PROJECT ACHIEVEMENTS DURING & AFTER SPARK

- *in vitro* and organoid studies with screening hits
- Selection of candidates to be tested *in vivo*

LONG-TERM GOALS

- Start an investigator-initiated trial based on repositioned drug(s)
- License to Pharma