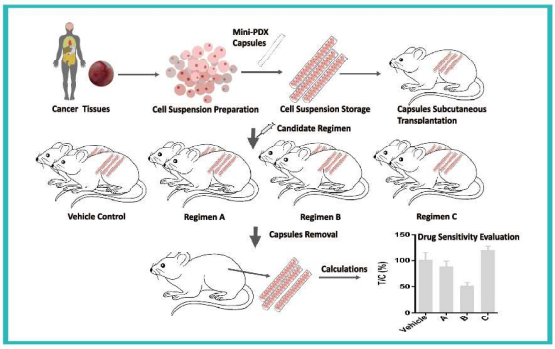
Oncolee®

Mini patient derived xenograft

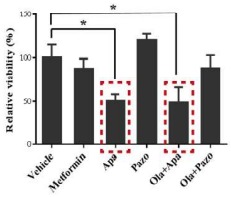
Introduction of MiniPDX

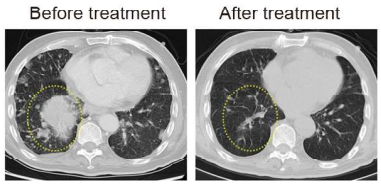
MiniPDX represents a novel platform of fast turnaround (7 days) in vivo drug sensitivity test, using either fresh patient tumor samples or tissues from established PDX models. Using MiniPDX for ranking the drug/treatment approved in clinical practice facilitates prioritization of the best strategy for benefiting patient in order to achieve precision medicine, while screening a series of small/large molecules within the similar scaffold enables selection of the best candidate for further drug R&D. Importantly, performing MiniPDX Mouse Trial using fresh tumor samples generated from clinic is beneficial for determination of potential clinical indication that would be fit for the investigating new drug.



Application of MiniPDX in precision medicine

Case study



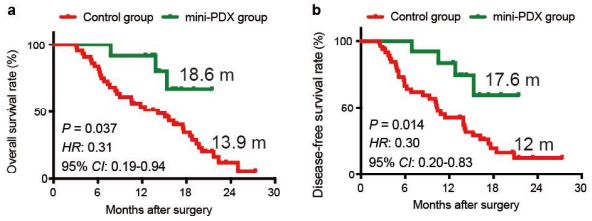


Ola, olapanib; apa, apatinib; pazo, pazopanib.

Samples generated from a patient with recurrent endometrial stromal sarcoma metastases to pulmonary demonstrated good response to Apatinib via MiniPDX screening. Then the patient achieved completely regression when applied the corresponding clinical therapy.

Retrospective analysis

Zhan M, et al. Cancer Commun (Lond). 2018 Jul 17;38(1): 48.



Patients who applied MiniPDX guided therapy had over 5 month improvement in OS and DFS compared to those received conventional therapies recommended by guidance.

LIDE has completed over 2,400 MiniPDX assays for precision medicine in clinical, including over 50 indications.

Tumor Type	No.	Tumor Type	No.	Tumor Type	No.
Adenoid Cystic Carcinoma(ACC)	3	Hemangioma	1	Periampullarycarcinoma	8
Anal Cancer	2	Hepatoblastoma	48	Peritoneal Metastatic Carcinoma	13
Atypical Teratoid/Rhabdoid Tumor, AT/RT	9	Hepatocellular Carcinoma	253	Pilocytic Astrocytoma	2
Bladder Cancer	13	Laryngocarcinoma	1	Prostate Cancer	54
Breast Cancer	84	Leukemia	3	Renal Carcinoma	22
Cancer of Biliary Duct	158	Lung Cancer	322	Retinoblastoma	6
Cervical Cancer	19	Lymphoma	12	Rhabdomyosarcoma	3
Chordoma	3	Malignant-Pleural Mesothelioma	2	RSPF	33
Choriocarcinoma	6	Melanoma	3	Testicular Cancer	1
Colorectal Cancer	232	Meningioma	22	Trophoblastic Tumor	16
Duodenal Carcinoma	32	Nasopharyngeal Carcinoma	9	Unidentified Children Brain Tumor	13
Endometrial Cancer	32	Nephroblastoma	3	Uterus Myoma	1
Esophageal Cancer	26	Neuroblastoma	17	Appendix Carcinoma	2
Gallbladder Cancer	94	Neuroendocrine	4	Urothelial Carcinoma	5
Gastric Cancer	212	Osteosarcoma	70	Carcinoma of Parotid Gland	4
GCT	5	Ovarian Cancer	140	Thyroid Carcinoma	1
Glioblastoma	196	Pancreatic Cancer	201		2444
Head and Neck Cancer	16	Penile Cancer	7	Updated on 2021-08-17	

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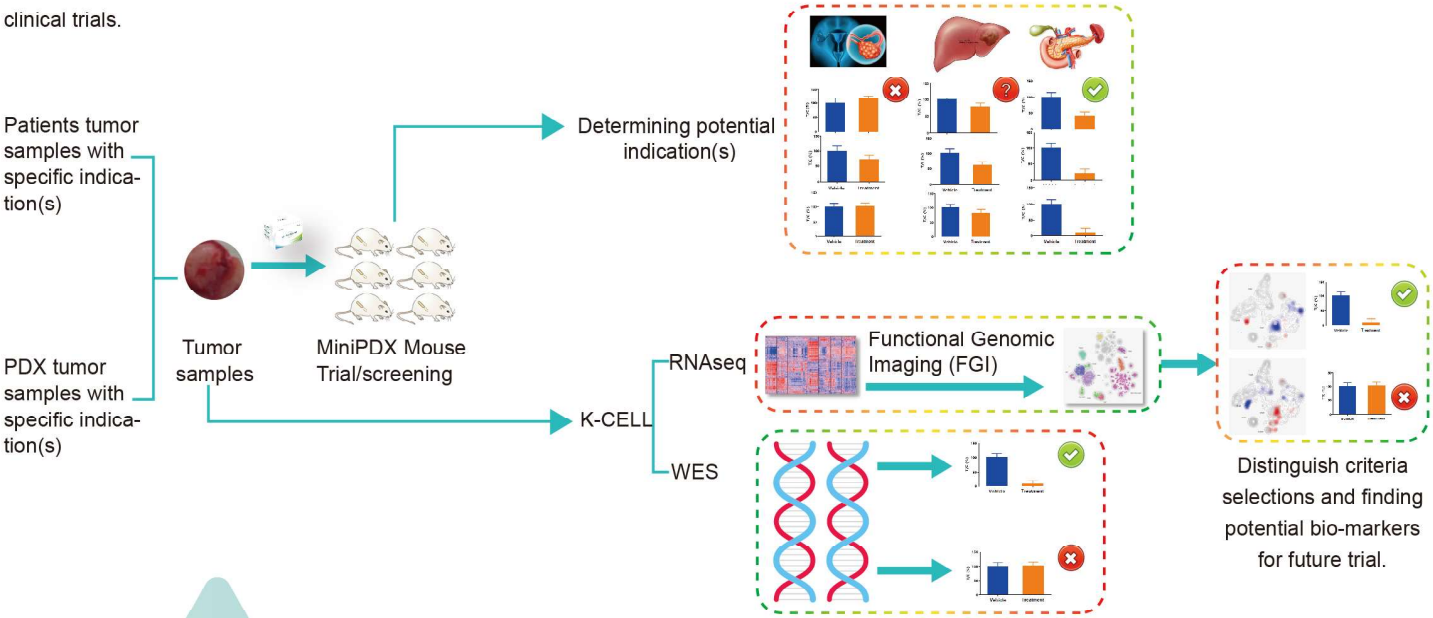
Application of MiniPDX in drug R&D

Using either fresh tumor samples directly from patients or tumor tissues from established PDX models, potential clinical indications of specific investigated new drug can be determined via MiniPDX Mouse Trial.

RNA or DNA can be extracted and enriched from only thousands of cells left from MiniPDX preparation by K cell technology, while RNAseq can be further analyzed via functional genomic imaging (FGI). The Omics data would be useful for determination of potential bio-markers in order to distinguish responders/non-responders in population with certain indication(s) and further applied in patient stratification to confirm inclusive/exclusive criteria in clinical trials.



LIDE proposes functional diagnostic based R&D process as the better one to replace the traditional R&D pattern