CROWN BIOSCIENCE

FACTSHEET

Pancreatic Cancer Advanced Translational Models

Integrated, Biomarker-Driven Models for Translational Pancreatic Cancer Research

Preclinical Pancreatic Cancer Models

At Crown Bioscience, we provide a comprehensive suite of pancreatic cancer models to advance translational research across KRAS-targeted therapies, antibody-drug conjugates (ADCs), immuno-oncology combinations, and other emerging therapeutic approaches. From patient-derived organoids to patient-derived xenografts (PDX), our platform captures the heterogeneity of pancreatic cancer and provides clinically relevant systems to evaluate drug response, biomarker strategy, and mechanism of action.

Clinically Relevant Tumor Modeling – Access a broad pancreatic cancer portfolio spanning primary and metastatic disease, including ductal adenocarcinoma, mucinous, and adenosquamous subtypes.

Enhanced Translational Insights – Leverage deep molecular characterization, including RNA-seq, exome sequencing, WGS on selected models, tissue microarrays, and biomarker analysis to support responder identification and translational strategy.

Accelerated and Scalable Drug Testing – Utilize patient-derived organoid models for rapid in vitro screening, including selected pancreatic organoid models with daraxonrasib response data, before moving into *in vivo* validation.

Expanded Capabilities for Target Validation – Select models based on clinically relevant biology, molecular features, treatment history, pathology, and availability of matched organoids and sequencing data.

Access to High-Quality Patient-Derived Material – Utilize well-characterized pancreatic PDX models that retain the histological and molecular features of the original patient tumors and support translationally relevant efficacy studies.

Overview

Pancreatic cancer remains one of the most challenging malignancies in oncology, with aggressive biology, limited treatment options, and poor long-term outcomes. Pancreatic ductal adenocarcinoma is the predominant subtype and is frequently driven by KRAS alterations alongside key co-mutations such as TP53, SMAD4, and CDKN2A. Despite progress in chemotherapy regimens and the emergence of KRAS-directed therapies, drug resistance and disease progression remain major barriers to durable response.

These challenges underscore the need for predictive preclinical models that reflect the complexity of pancreatic cancer biology. Crown Bioscience provides integrated *in vitro* and *in vivo* pancreatic cancer platforms to help researchers evaluate therapeutic efficacy, investigate resistance, identify biomarkers, and prioritize development strategies with greater confidence.

Catalyze Your Research with the Right Pancreatic Cancer Models

Breakthrough discoveries start with the right model selection. Our pancreatic cancer platform is designed to provide clinically relevant, biomarker-informed systems for therapeutic evaluation and translational decision-making.

Broad Histological and Disease Representation

Access pancreatic cancer models derived from primary tumors and metastatic sites, including pancreas, liver, omentum, ascites, pleural fluid, lymph node, and other clinically relevant sources.

Therapeutic Modality Flexibility

Our pancreatic cancer platform supports studies for KRAS-targeted therapies, ADCs, chemotherapy combinations, stromal-targeting approaches, immuno-oncology combinations, and other emerging modalities.

Daraxonrasib-Tested Organoid Models

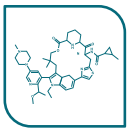
Selected pancreatic organoid models include daraxonrasib response data, enabling benchmarking, response profiling, and support for KRAS-directed development strategies.

Matched Patient-Derived Organoids

Paired organoid and PDX models derived from the same patient tumor enable seamless translation from *in vitro* screening to *in vivo* validation

Primary and Metastatic Disease Coverage

Study pancreatic cancer biology across both treatment-naive and treatment-experienced settings, with models originating from both primary lesions and metastatic disease.



Molecularly Characterized Portfolio

Many models include RNA-seq, exome sequencing, WGS on selected models, TMA availability, and pathology review to support biomarker discovery and translational research.

Pancreatic Cancer Platform Highlights

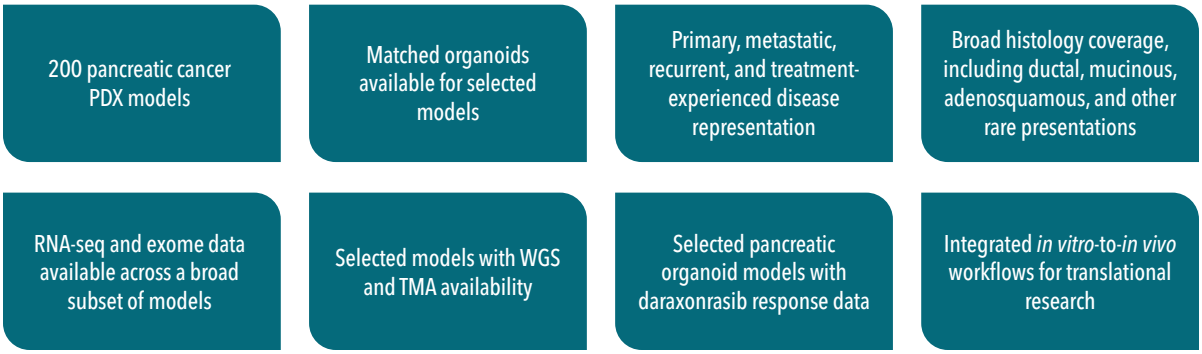


Table 1. Pancreatic Cancer Portfolio at a Glance

Crown Bioscience offers a comprehensive pancreatic cancer platform that combines portfolio breadth with translational depth. With 200+ PDX models, matched organoids for selected models, daraxonrasib benchmarking data and molecularly characterized systems spanning primary and metastatic disease, the platform is designed to support biomarker-driven research and preclinical decision-making.

Portfolio Feature	Summary
Pancreatic PDX Models	200 patient-derived pancreatic cancer PDX models
Matched Organoid Availability	Matched organoids available for selected PDX models
Disease Representation	Primary, metastatic, recurrent, and treatment-experienced disease
Histologies Covered	Ductal adenocarcinoma, mucinous, adenosquamous, squamous, and other rare presentations
Sample Origins	Pancreas, liver, omentum, ascites, pleural fluid, lymph node, and other metastatic sites
Molecular Data	RNA-seq and exome data available across a broad subset of models; WGS available for selected models
Tissue Resources	TMA available for selected models
Study Formats	Organoids, PDX, and matched organoid–PDX workflows
Therapeutic Applications	KRAS-directed research, ADC evaluation, chemotherapy benchmarking, biomarker studies, and translational research

Table 2. Representative Pancreatic PDX Models Across Disease Diversity

Our pancreatic 200+ PDX portfolio spans primary and metastatic disease, diverse histologies, matched organoid availability, and multi-omics support.

Model	Disease Context	Matched Organoid	Data Available	Notable Feature
PA1194	Ductal adenocarcinoma, primary pancreas	Yes	RNA-seq, Exome, WGS, TMA	Published in KRAS-directed research
PA1280	Adenosquamous carcinoma, pancreas	Yes	RNA-seq, Exome, WGS, TMA	ERBB2 amplified
PA1221	Ductal adenocarcinoma, primary pancreas	Yes	RNA-seq, Exome, WGS, TMA	DNA damage response study utility
PA2031	Advanced pancreatic adenocarcinoma	Yes	RNA-seq, Exome, WGS, TMA	Broad site availability across regions
PA3149	Ductal adenocarcinoma, pancreas	Yes	RNA-seq, Exome, WGS	Orthotopic model capability
PA9542	Pretreated pancreatic adenocarcinoma from ascites	Yes	RNA-seq, Exome, WGS	Heavily treated disease history
PA9573	Recurrent pancreatic primary	Yes	RNA-seq, Exome, WGS, TMA	Longitudinal same-patient model set
PA9658	Recurrent pancreatic primary	Yes	RNA-seq, Exome, WGS	Companion model from same patient as PA9573
PA6470	Pancreatic body adenocarcinoma	Yes	RNA-seq, Exome	ERBB2 amplified
PA2405	Liver metastatic adenocarcinoma	Yes	RNA-seq, Exome, WGS	Metastatic model with matched daraxonrasib-tested organoid

Table 3. Selected Matched Pancreatic Organoid–PDX Models With Organoid Daraxonrasib Response Data

Matched patient-derived organoid and PDX pairs enable seamless translation from *in vitro* screening to *in vivo* validation in biologically aligned models. Daraxonrasib response values shown below were generated in the matched organoid models.

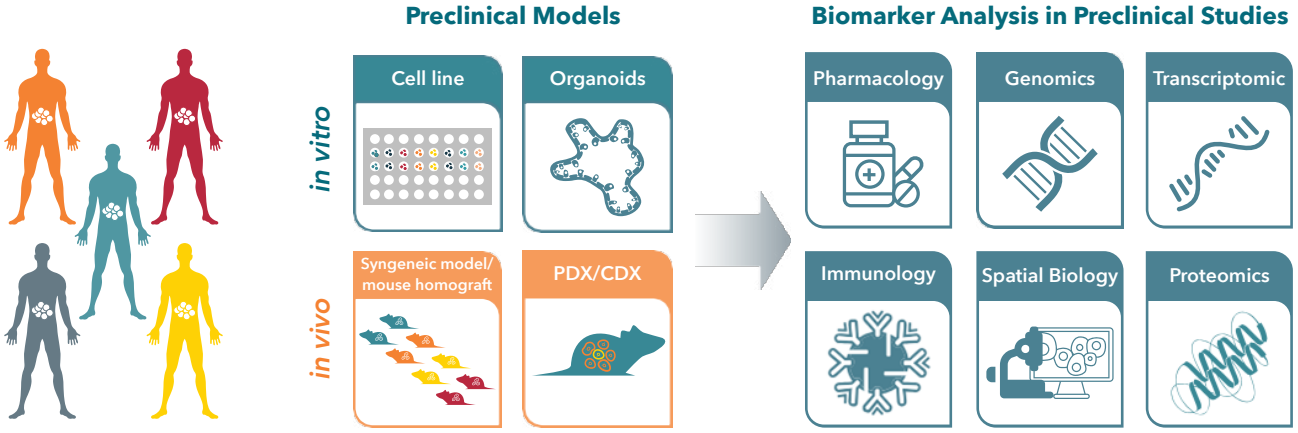
PDX Model	Matching Organoid	Disease Context	Daraxonrasib Absolute IC50 (μM)	Max Inhibition (%)	Translational Value
PA2405	PA2405B	Liver metastatic adenocarcinoma	<0.0001	93.00	Highly sensitive matched pair for rapid *in vitro*-to-*in vivo* follow-up
PA20083	PA20083B	Pancreatic adenocarcinoma	0.0011	90.36	Strong organoid response in matched patient-derived system
PA20072	PA20072B	Pancreatic adenocarcinoma	0.0019	87.86	Sensitive matched pair for KRAS-directed benchmarking
PA13034	PA13034B	Omentum-derived pancreatic carcinoma	0.0034	90.20	Robust organoid response with matched in vivo model
PA9573	PA9573B	Recurrent pancreatic primary	0.0030	88.55	Treatment-experienced matched pair with strong response
PA2410	PA2410B	Stage IV liver metastatic adenocarcinoma	0.0084	85.98	Metastatic matched pair with strong inhibition
PA2416	PA2416B	Pancreatic ductal adenocarcinoma	0.0045	81.94	Matched pair suited for efficacy and resistance studies
PA5389	PA5389B	Advanced disease from paracentesis fluid	0.0108	86.72	Strong response in advanced-disease matched pair
PA5410	PA5410B	Pretreated disease from paracentesis	0.1241	56.51	Lower-sensitivity matched pair for comparative studies
PA2415	PA2415B	Stage IV mucinous PDAC	NA	36.68	Low-response matched pair useful for resistance biology

*Daraxonrasib response values shown in Table 3 were generated in matched pancreatic organoid models, not in PDX studies.

Seamless Transition from *In Vitro* to *In Vivo*

We offer a fully integrated platform that enables a smooth progression of research from early discovery to translational studies:

- **Patient-Derived Biobanks** – Well-characterized patient tissue containing patient demographics, genomics and treatment history forms the foundation for meaningful studies.
- **PDX Models** – Patient-derived xenograft models provide a predictive *in vivo* system to validate therapeutic efficacy.
- **Comprehensive Biomarker Analysis** – In-depth characterization of drug response and resistance mechanisms through multi-omics and advanced analytics.



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