

# Precision therapeutics: optimising early discovery

**TARGETED ONCOLOGY THERAPIES** Precision medicine tailors therapeutics to individual patients' diseases, and is seen as the future of clinical practice. With significant time and financial investments being made in developing therapeutics, the ultimate success of patient-data driven precision therapies hinges on three main factors: the quality of the tissue samples, the associated molecular data, and the analysis used in their development.

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A foundational aspect of precision oncology is the data-driven understanding of cancer, which requires high-quality biospecimen. Use of suboptimal specimen can therefore lead to loss of vital information critical for biomarker and therapeutic target identification. Obtaining freshly frozen and consistently collected and processed biospecimen with high sample integrity is crucial for generating clinically relevant patient-based data.

Accurate therapeutic target identification and defining patient subgroups are critical in precision medicine. To ensure success, the tissue type and patient subgroup should be optimised for each therapeutic target during preclinical research.

## Unraveling cancer

Analysing the data is as essential as sample quality. The emerging field of multi-omics offers promise by analytically combining distinct datasets that together provide broader insights into the disease. However, large and complex datasets can present challenges, which machine learning and cloud-based computing tools can help address, facilitating efficient target selection.

In-vitro target validation is necessary before progressing through discovery pipelines. Patient-derived cellular models, like organoids, enhance preclinical validation efforts, optimising chances of success.

Preclinical research presents unique challenges in that it is expensive, laborious, and marked by a high failure rate in identifying therapeutic targets. To address and overcome these challenges, Indivumed Therapeutics developed nRavel®, a discovery and development platform. Based on the standardised tissue and clinical data collection in partner clinics and the extensive multi-omic data processing, nRavel® sifts through patterns and identifies, characterises, and validates targets using AI-integrated data analytics and patient information, alongside patient based cellular model experimental results.

It utilises the same tissue and corresponding data throughout the entire drug

development process to gain insights, drive therapeutic target and biomarker discovery and validation, and lead development and clinical trial performance to facilitate the discovery and development of targeted therapies.

Starting and ending with the patient in mind, Indivumed Therapeutics is the only company possessing such a vast amount of high-quality, deep molecular data. The company remains at the forefront of therapeutic development, with actionable targets currently being validated using patient-derived organoids across ten cancer types and the ultimate goal of ensuring the global delivery of effective precision therapies to patients in need. ■



**Proprietary multi-omic data is the foundation of Indivumed's approach to precision medicine and drug development.**