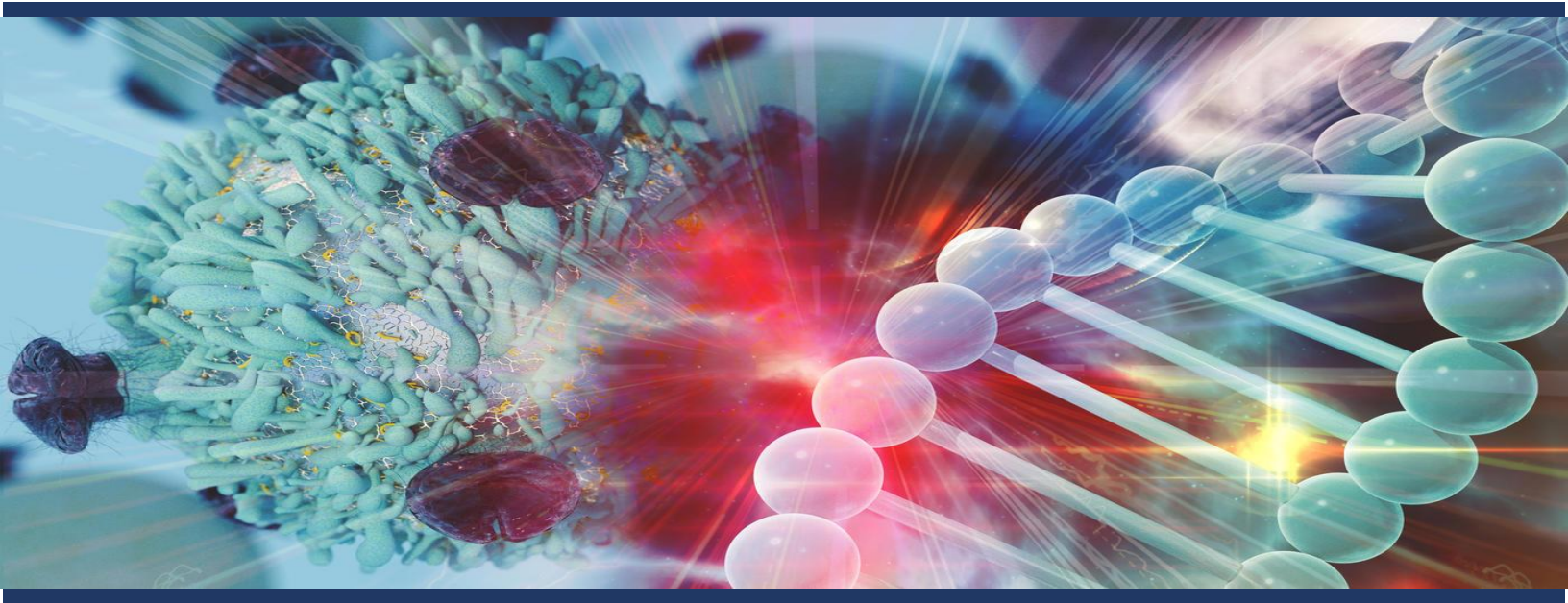


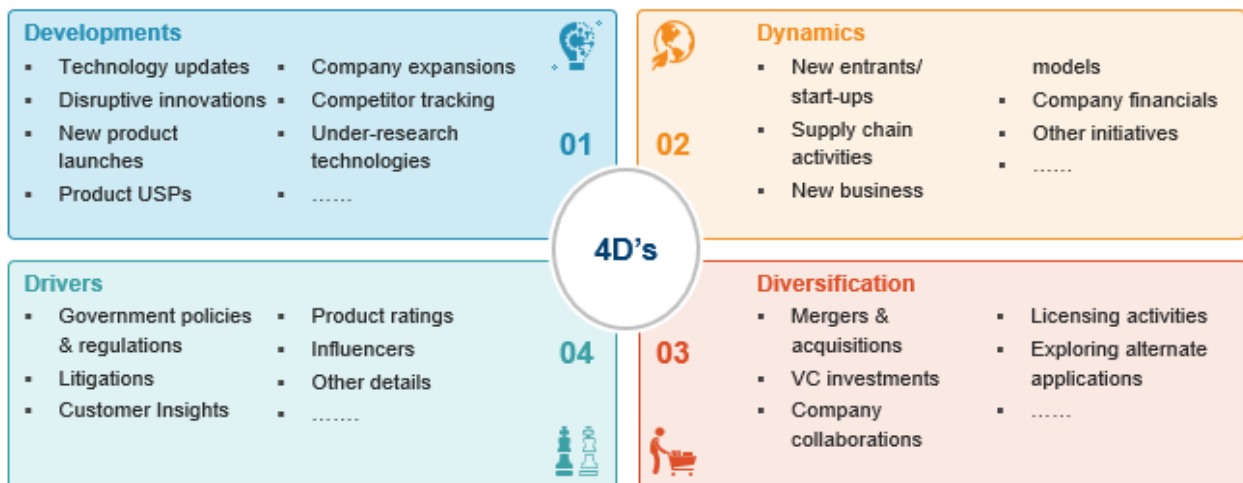
INTELLOTRACKER

IMMUNOTHERAPY FOR CANCER TREATMENT

JUNE 2023



ARANCA'S QUARTERLY SECTORIAL UPDATE ACROSS FOUR DIMENSIONS....





DEVELOPMENTS

Under-research technologies	MEDICALNEWS TODAY	Researchers recently investigated how gut bacteria influence the efficacy of immune checkpoint inhibitor (ICI) treatment in mice, and how these findings may apply to humans with further studies. <i>Source: MedicalNewsToday</i>
Under-research technologies		New approach leverages Artificial Intelligence, Machine Learning and Big Data to discover Multi-Functional Drugs and use the data to predict how people will respond to immunotherapy. <i>Source: University of New Mexico Newsroom</i>
Under-research technologies		Histotripsy is a new technique that uses sound waves to rip tumors apart, without even breaking the skin. The non-invasive waves work in two ways: to break down a shield that protects the tumor cells, and then stimulate an immune response. <i>Source: Lab Roots Blog</i>
Under-research technologies		New CAR T-cell immunotherapy using an alternative to using CAR-T cells derived from cancer patients is to use pre-manufactured 'off-the-shelf' Chimeric Antigen Receptor (CAR) T-cells. shows promising results for treating blood cancer patients. <i>Source: KCL News Centre</i>
Under-research technologies		Researchers from Leman Biotech, an EPFL spin-off, have developed a booster protein that can be used in conjunction with immunotherapy drugs. <i>Source: SwissInfo Blog</i>
Under-research technologies		Neoantigens, which are self-antigens generated by tumor cells because of genomic mutations, offer a distinct advantage in their unique tumor-specific and absence in normal tissues, presenting ideal targets for effectively personalized treatment of tumors. <i>Source: Nature Communications Blog</i>
Technology/Innovations		IMcoMET has produced a technology based on microneedles and microfluidics to physically eliminate the tumor's microenvironment and all of its components, replacing them with healthy tissue. <i>Source: AZO Materials</i>
Company expansions		The MetroHealth System announced completion of Vector and Cellular Facility to produce cellular immunotherapies in-house, speeding up delivery of innovative treatments, such as CAR-T therapy production, for both patient treatments and clinical trials. <i>Source: Metro Health Blog</i>



DYNAMICS

New Entrants/Startups		Atara is an allogeneic T-cell immunotherapy company that harnesses the power of Epstein-Barr virus (EBV) T-cell platform to develop transformative therapies for patients with cancer and autoimmune conditions. <i>Source: Company Website</i>
New Entrants/Startups		Xbiome is a world leading AI-driven microbiome therapeutics company, that combines machine learning, bioinformatics, animal and human studies for microbiome drug discovery for areas such as cancer immunotherapy among others. <i>Source: WellFound Blog</i>
New Entrants/Startups		Pragma Bio is searching for cancer treatments hidden in our microbiome. Their approach is to mine this gut biome by mapping the microbes, their genes, the proteins and enzymes and other molecules they produce. <i>Source: TechCrunch Blog</i>



DIVERSIFICATION

Company collaboration		Gilead and EVOQ Therapeutics Announce Collaboration to Exclusively License EVOQ's NanoDisc Technology to Develop and Commercialize Immunotherapy Products for Rheumatoid Arthritis and Lupus. <i>Source: Gilead Press Release</i>
Company collaboration		Akamis Bio, Parker Institute for Cancer Immunotherapy, and Cancer Research Institute Announce Expanded Partnership to Advance Novel Treatments for Pancreatic Cancer. <i>Source: BusinessWire</i>
Company collaboration		The University of California and Foundry Biotech Sign Master Agreement to Translate Novel Discoveries into Transformational Immunotherapies. <i>Source: GlobeNewsWire</i>
Company collaboration		MD Anderson and Federation Bio announce collaboration to develop novel microbiome treatment for patients with immunotherapy-resistant cancers. <i>Source: Press Release</i>
Company collaboration		Boehringer Ingelheim and 3T Biosciences Join Forces to Develop Next-Generation Cancer Immunotherapies, by using 3T's 3T-TRACE (T-Cell Receptor Antigen and Cross-Reactivity Engine) discovery platform. <i>Source: Company Website</i>

VC Investments		TILT Biotherapeutics announced the final close of its EUR 22 million financing round. Its innovation uses armed oncolytic adenoviruses, using cytokines and other molecules to boost the patient's immune response to better enable it to find and destroy cancer cells. <i>Source: MedTech Alert Blog</i>
VC Investments		Cargo Therapeutics has raised \$200 million from a group of blue-chip investors to develop a new kind of cancer cell therapy for people with lymphoma whose cancer has relapsed or grown resistant to existing cellular treatments. <i>Source: BioPharma Dive</i>
VC Investments		Researchers at the University of Southampton have received £1.38 million for a new research programme to improve detection and immunotherapy treatment for head and neck cancer. <i>Source: University of Southampton News</i>
VC Investments		Microbial Immunotherapy Company Prokarium Raises \$30M to develop its flagship "living medicine" bacteria-based immunotherapy program aims to move forward in the fight against bladder cancer. <i>Source: Forbes</i>
VC Investments		Immunotherapy company Nammi Therapeutics Inc. received a \$4 million grant award from South San Francisco-based California Institute of Regenerative Medicine. <i>Source: Forbes</i>

DRIVERS		
Others	 <small>Drugs Controller General of India</small>	MSD (tradename of Merck & Co.) has announced that the Drugs Controller General of India (DCGI) has approved Keytruda (pembrolizumab) for the treatment of cervical cancer and the first immunotherapy to be approved as a first-line treatment for a significant sub-group of patients. <i>Source: BioSpectrum India</i>

SOLUTION PORTFOLIO – TECHNOLOGY RESEARCH & ADVISORY

IP STRATEGY	TECHNOLOGY INTELLIGENCE	GROWTH & STRATEGY
How best can we proactively manage and monetise our technical knowhow / intellectual property?	How best can we keep abreast of technology trends, competitor activity and headwinds / tailwinds in our domain?	Which technologies do we invest in? How do we ensure quick wins? Speed to market?
<ul style="list-style-type: none"> IP Portfolio Analysis IP Monetisation IP Valuation Prior Art Searches 	<ul style="list-style-type: none"> Competitor Benchmarking Tech / IP Landscapes Technology Watch Market Analysis / Trends 	<ul style="list-style-type: none"> R&D Strategy Roadmaps Technology Scouting Open Innovation Product Development



GROWTH
ADVISORY



INVESTMENT
RESEARCH
& ANALYTICS



VALUATION
& FINANCIAL
ADVISORY



TECHNOLOGY
RESEARCH
& ADVISORY



PROCUREMENT &
SUPPLY CHAIN
INTELLIGENCE

This material is exclusive property of Aranca. No part of this presentation may be used, shared, modified and/or disseminated without permission. All rights reserved.