

#### **Case Study**



Comprehensive Analysis of Putative Drug Targets and their Comparison (A Target Dossier Service)

### The Purpose

A large pharma company requested for a comprehensive assessment on two new drug targets of interest which are the most abundantly expressed inhibitory Leukocyte immunoglobulin (Ig)-like receptors.

### About the Client









THERAPEUTIC AREA Immuno-oncology

# **Client Requirement**

The partner was interested in developing molecules for one/both new targets of interest in immuno oncology. The objective was to provide a holistic view of the targets using publicly available databases, Excelra's proprietary platform and published literature. The client was further interested in a comparative analysis of the targets to characterize their detailed role in normal physiology, disease and its clinical relevance to facilitate early discovery phase decisions.

# The Excelra Approach

#### The following aspects of the two targets were analysed and compared.

- Target function in healthy tissues as well as its association with disease(s)
- Molecular pharmacology, target expression across human tissues/organs, species, gene alterations and target interactions with other proteins/genes
- Sequence, crystal structure, domains and homology modelling
- Adverse events or toxicity data for compounds at any stage of development
- Recommendation of animal models and pre-clinical assays
- ON- and OFF- target safety assessment and de-risking strategies
- Competitor profile: Competitive landscape of drug development by stage (approved, clinical & pre-clinical drugs)



# **Excelra's Contribution**

A holistic view of the two targets was provided. The role and MoA of both isoforms were established in the disease of interest. One target was recommended over the other, given that it would be first in class therapy with no current evidence of clinical testing in humans and is easier to target based on crystal structure analysis.

# Excelra's Service Portfolio

	Insights	Data
<b>Discovery</b>	<ul> <li>Data Science Driven Drug Discovery</li> <li>Target Identification</li> <li>Target Dossier Services</li> </ul>	<ul> <li>Chemistry Curation Services</li> <li>GOSTAR Structure Activity Relationship database</li> </ul>
Translational	<ul> <li>Biomarker Discovery</li> <li>Drug Repositioning</li> <li>Life Cycle Management</li> <li>Systems Biology Informatics</li> </ul>	<ul> <li>Biology Curation Services</li> <li>GOBIOM Biomarker intelligence database</li> </ul>
ີ່ Clinical	<ul><li>Precision Oncology Informatics</li><li>Clinical Pharmacology</li></ul>	<ul> <li>Clinical Trial Outcomes Database</li> </ul>
Value Evidence	<ul> <li>Outcomes Research</li> <li>Epidemiology Modelling</li> <li>Economic Modelling</li> <li>Value Evidence Communication</li> </ul>	<ul> <li>RWE &amp; Big Data Realization</li> <li>SLR &amp; Meta-analysis</li> </ul>
Technology Solutions	<ul> <li>Enterprise Data Strategy</li> <li>Enterprise Cloud Ops</li> <li>Enterprise Digital Transformation</li> </ul>	

For more information & to download a brochure, visit https://www.excelra.com/discovery/#target\_dossier



#### About Excelra

Excelra's data and analytics solutions empower innovation in life sciences across the value chain from discovery to market. The Excelra Edge comes from a seamless amalgamation of proprietary curated data assets, deep domain expertise and data science. The company's multifaceted teams harmonize and analyse large volumes of disparate unstructured data using cutting-edge technologies. We galvanize data-driven decisions to unlock operational efficiencies to accelerate drug discovery and development. Over the past 18 years, Excelra has been the preferred data and analytics partner to over 90 global clients, including 15 of the top 20 large Pharma.

marketing@excelra.com

www.excelra.com