

# **Intracellular Targets made druggable by TCR-like Antibodies, TCR Fusion Proteins & Cell-Penetrating Biologics 2018: an industry analysis of technologies, stakeholders, deals & trends**

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## **Abstracts**

It is estimated that there are 3-4 times more intracellular targets than surface protein targets. However, these intracellular cancer targets are not accessible to traditional monoclonal antibody (mAb) therapies. Since many of these targets are not enzymes or surface receptors with readily druggable pockets, these important oncogenic proteins cannot be easily inhibited with small molecules. Thus, intracellular cancer-specific proteins, such as mutated oncogene products, transcription factors, protein adapters, and other nontraditional targets, remain inaccessible to current technologies used for FDA-approved drugs.

Therefore, novel technologies are needed to address historically undruggable targets and complex mechanisms, such as intracellular protein-protein interactions like p53 or Ras,  $\beta$ -catenin and Myc.

This report „Intracellular Targets made druggable by TCR-like Antibodies, TCR Fusion Proteins & Cell-Penetrating Biologics 2018: an industry analysis of technologies, stakeholders, deals & trends“ brings you up-to-date regarding key technologies

for identification and validation of intracellular targets,

for generation of T-cell receptors (TCR) and TCR fusion proteins,

for discovery of TCR-like antibodies, and

for construction of cell-penetrating peptides, proteins and antibodies.

The report furthermore describes the profiles of leading product candidates created by these technologies. The technology companies are presented and analyzed. Deals between Big Pharma and technology companies as well as collaboration and licensing deals between technology companies are highlighted. The value of technologies and product candidates are discussed regarding company acquisition prices, economic deal terms and financing rounds.

What will you find in the report?

Description and comparison of technologies for

Discovery and validation of intracellular targets;

Discovery and optimization of T-Cell Receptors (TCRs);

Generation of TCR-like or TCR-mimic antibodies;

Generation of TCR fusion proteins

Generation of cell-penetrating peptides, proteins and antibodies.

Presentation and discussion of profiles of selected product candidates:

TCRL antibodies and TCR fusion proteins; and

Cell-penetrating peptides, miniproteins and single domain and Ig antibodies

Stakeholder analysis based on profiles of 45 companies active in the field Analysis of partnering deals and financing rounds

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Agenus  
Aileron Therapeutics  
Amgen  
Astellas Pharma  
AstraZeneca  
Atreca  
BioNTech  
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GlaxoSmith-Kline  
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Immunocore  
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Janssen Biotech  
Juno Therapeutics  
MD Anderson Cancer Center  
Medigene  
Merck  
Morphosys  
NantCell (Altor Bioscience)  
Nextera  
Novartis  
Orum Pharmaceuticals



Patrys  
Pure MHC  
Pure MHC  
Receptor Logic (now Pure MHC)  
Regeneron Pharmaceuticals  
Roche  
Singh Biotechnology  
Sorrento Therapeutics & LA Cell  
Timmune Biotech  
Xencor  
ZIOPHARM Oncology  
Zymeworks

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