ANGELES THERAPEUTICS

Simplicity is the ultimate sophistication

Leonardo Da Vinci

Introduction

Current Chimeric Antigen Receptors (CARs) lack physiological regulation and resemble an "Emperor without Clothes." All the major limitations of the CAR-T (e.g., lack of efficacy in solid tumors, disease relapse in blood cancers, toxicities and risk of secondary T cell cancers) are primarily due to a flawed CAR design.

CAR-T field has been attributing the above limitations to factors other than the CAR design.

This misdiagnosed has led to significant wasted time, effort and capital, and created a unique opportunity.

Angeles recognized flaws in current-gen CAR-T design nearly a decade ago. Angeles operated in a semistealth mode to create a dominant position in next gen cell therapy

SIR-T (Synthetic Immune Receptor) Platform

- Hybrid of T cell receptor (TCR) and CAR.
- Signals like a natural TCR, attacks cell surface antigens like a CAR combines best features of both.



SIR-T Platform Advantages

• 1. Efficacy:

• Nearly 100% *in vivo* efficacy in multiple solid tumor models.

• 2. Durability:

- Physiological T cell signaling results in longterm persistence of SIR-T cells
- Can target multiple antigens with a single receptor, overcoming disease relapse.

• 3. Safety:

- Low risk of cytokine release, neurological complications, and <u>secondary T cell cancers</u>.
- 4. Cost Reduction:
 - Potential for outpatient administration without prior chemotherapy.

- 5. Manufacturing Ease:
 - Compatible with off-the-shelf allogeneic approach.
- 6. External Validation:
 - 7 projects with >\$10M in peer-reviewed funding from CIRM and Department of Defense.
 - Validation by big pharma under MTA
- 7. Deep Pipeline:
 - Numerous assets advancing toward Investigational New Drug (IND) filing.
- 8. Dominant IP Position:
 - >150 patent applications pending worldwide.
- 9. Flexibility:
 - Open to various investment/partnership models
 - New company formation around selected
 assets
 - Out-licensing
 - Co-development partnerships
 - JV

Winning Lead SIR-T programs



CIRM and DoD grant funding was provided to Preet Chaudhary, MD, Ph.D. laboratory at U.S.C

Extensive *Pipeline SIR-T* **Programs**



DoD grant funding was provided to Preet Chaudhary, MD, Ph.D. laboratory at U.S.C

Angeles Therapeutics, Inc.

Preet M. Chaudhary, MD, PhD Founder and CEO Preet.Chaudhary@angelestherapeutics.com

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CAR-T vs SIR-T

Property	CAR-T	SIR-T
Toxicity	Yes	Νο
Non-physiological tonic signaling	Yes	Νο
T cell exhaustion	Yes	Νο
Lack of persistence	Yes	Νο
Disease relapse	Yes	Νο
Lack of efficacy against solid tumors	Yes	Νο
Immunogenicity	Yes	No

Unique Investment/Partnership Opportunities

• Unique Offering:

- Largest portfolio of next-gen cell therapies globally.
- Several assets ready for IND filing in the next 6-12 months

• Flexibility:

- Open to various investment/partnership models
 - New company formation around selected assets
 - Out-licensing
 - Co-development partnerships
 - JV

Leapfrogging Opportunity:

• A partnership with Angeles enables leapfrogging established cell therapy companies facing traditional CAR-T limitations and new regulatory challenges due to recently identified risk of secondary T cell cancers .

Angeles ecosystem for cell therapy

Proprietary Synthetic Immune Receptor-T (SIR-T) and SIR-NK and U-SIR (Universal) platforms Superior efficacy against solid tumors and blood cancers *	Lead pre-IND programs PSMA Mesothelin Her2 CD70 CLDN6	
Safe	STEAP2	N 11(1) Minute and aller
Underpinned by 15 patent families owned or exclusively licensed from USC	Advanced pipeline CD19 BCMA CD123	
granted or pending	GD2 CD19 x CD22	
Global protections covering 60 regions/territories	CD19 x CD22 x BCMA	Market Aller Contraction

SIR-T overcomes the lack of efficacy of CAR-T in solid tumors: Ovarian cancer xenograft model



SIR-T overcomes the lack of efficacy of CAR-T in solid tumors: Prostate Cancer Xenograft Model



Recent Peer-Reviewed Funding



- SIR-T targeting **melanoma**
- SIR-T targeting kidney cancer (2022)
- SIR-T targeting kidney cancer (2023)
- Bispecific-SIR-T asset targeting lymphoma
- SIR-T targeting prostate cancer
- SIR-T targeting ovarian cancer



SIR-T asset targeting prostate cancer

- ~\$ 10.0 M in non-dilutive funding to accelerate 7 lead programs.
- Grant funding was provided to Preet Chaudhary, MD, Ph.D. laboratory at U.S.C.

Founder's Track Record of Success

Highest cited cancer related patent in the world between 1993 and 2013



Preet M. Chaudhary, MD, PhD

Founder

Professor and Chief of Hematology and Director of Blood and Marrow Transplant and Cell Therapy at University of Southern California

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Clearing the Fog of Anticancer Patents from 1993–2013: Through an In-Depth Technology Landscape & Target Analysis from Pioneer Research Institutes and Universities Worldwide

Ajay Dara, Abhay T. Sangamwar* Department of Pharmacoinformatics, National Institute of Pharmaceutical Education and Research (NIPER), S.A.S. Nagar, Punjab, India

Citing patent analysis. The patent with maximum citing count is considered as the core technology, as many inventor/ assignees are working in the same field of technology and the work is assumed to be actively performed based on number of loward citation. The PCT application WO1999011791A2 with a count of 168 citation has been reported as the top citing patents assigned to University of Washington with only one inventor Chaudhary Preet M. The patent was published in year 1999 claiming the priority year 1997 and talks about the invention related to the new tumour necrosis factor (TNF) family receptor polypeptides and figands useful for diagnosis and treatment of prostate cancer and developmental or gestational abnormalities [34]. The novelty of the invention claims the isolated TNF polypeptides: apolipoprotein APO4, APO6, APO8 and APO9 along with the isolated TNF related ligands 1 and 3 (TNRL1 and TNRL3) and their active fragments. This patent has been cited much by the Human Genome Sciences, Inc. followed by the Smithkline Beecham Corporation; Genentech, Inc; Biogen Idec Ma Inc; The Uab Research Foundation and Zymogenetics, Inc. which are considered as the active assignee in the field of TNF anticancer targeted drug discovery (Figure 7).

Non-patent citation analysis. The study would analyse the number of non-patent documents such as review/research articles,

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