Unlocking Immunotherapies for Solid Cancer Patients

Immatics Corporate Presentation, January 2021

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Unlocking Immunotherapies for Solid Cancer Patients

Two Transformative Treatment Modalities: Adoptive Cell Therapies and TCR Bispecifics

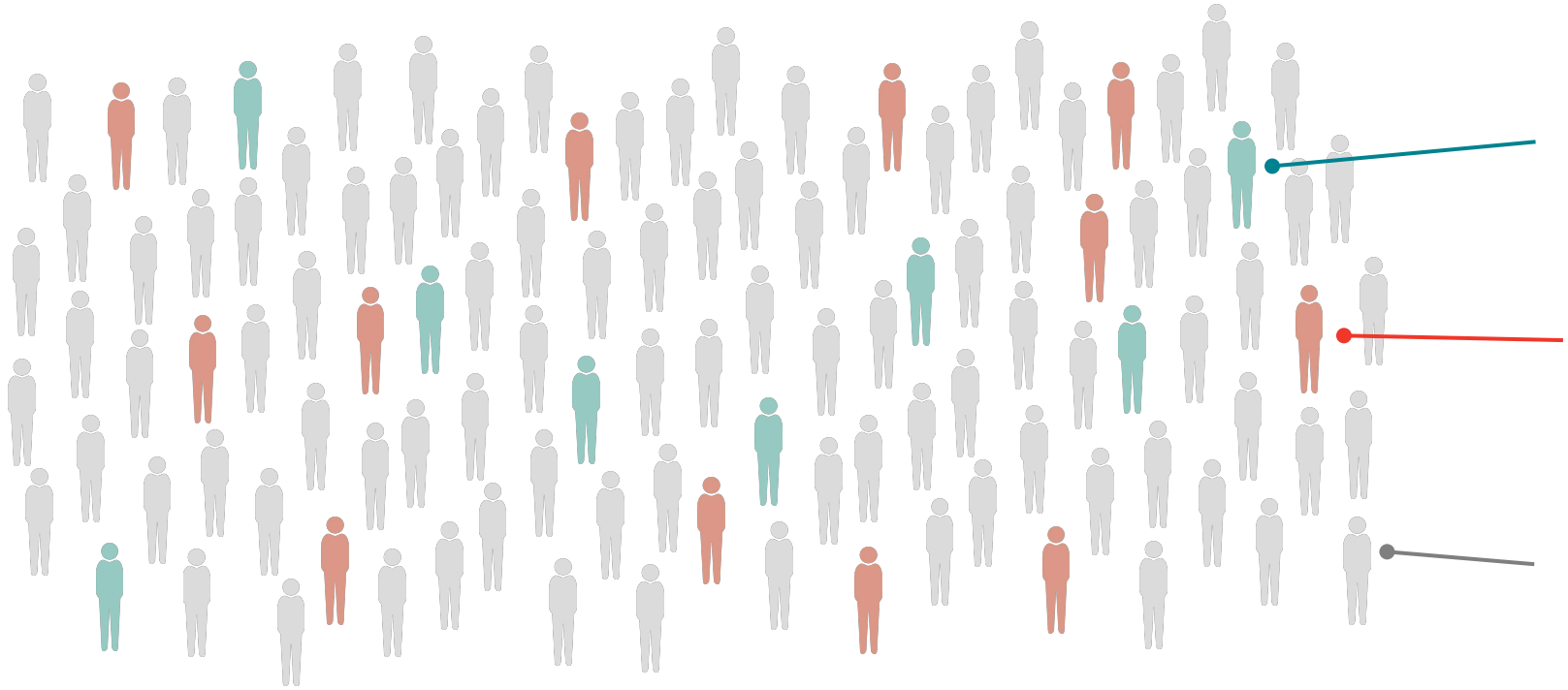
Highly Differentiated Technologies to Identify True Cancer Targets and the Right TCRs

Strategic Collaborations with World-leading Industry Players

Limitations of Current Immunotherapies in Solid Cancer Patients

… Driven by a Lack of Known Cancer-specific Targets

Most cancer patients do not benefit from current immuno-oncology approaches



Checkpoint inhibitors
mainly effective in tumors with high mutational burden
minority of all cancers[1]

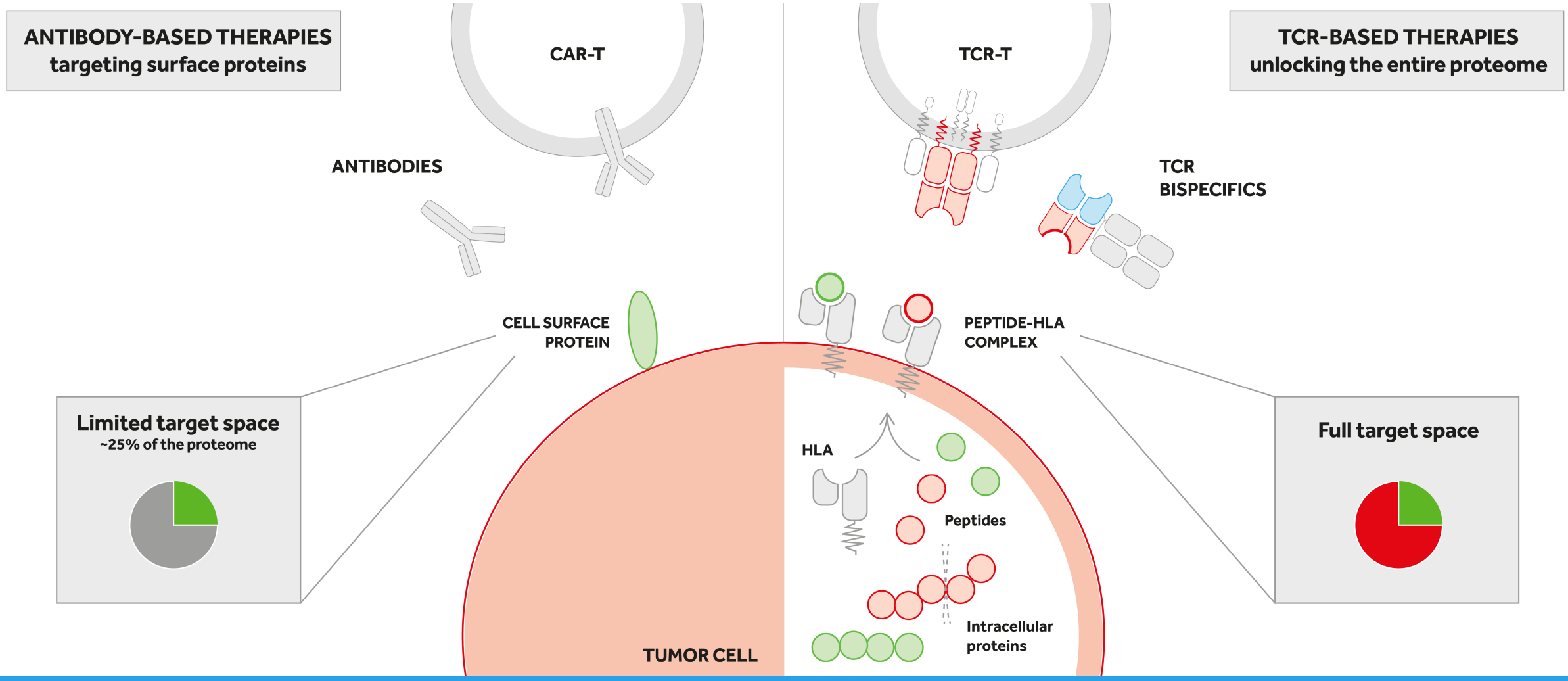
CAR-T
mainly effective in hematological malignancies
minority of all cancers[2]

Solid tumors
limited established treatments & high medical need
majority of all cancers

[1] Chalmers *et al.*, 2017; [2]SEER Cancer Statistics Review, 1975-2017, Estimated New Cancer Cases for 2020

Unlocking Immunotherapies for Solid Cancer Patients

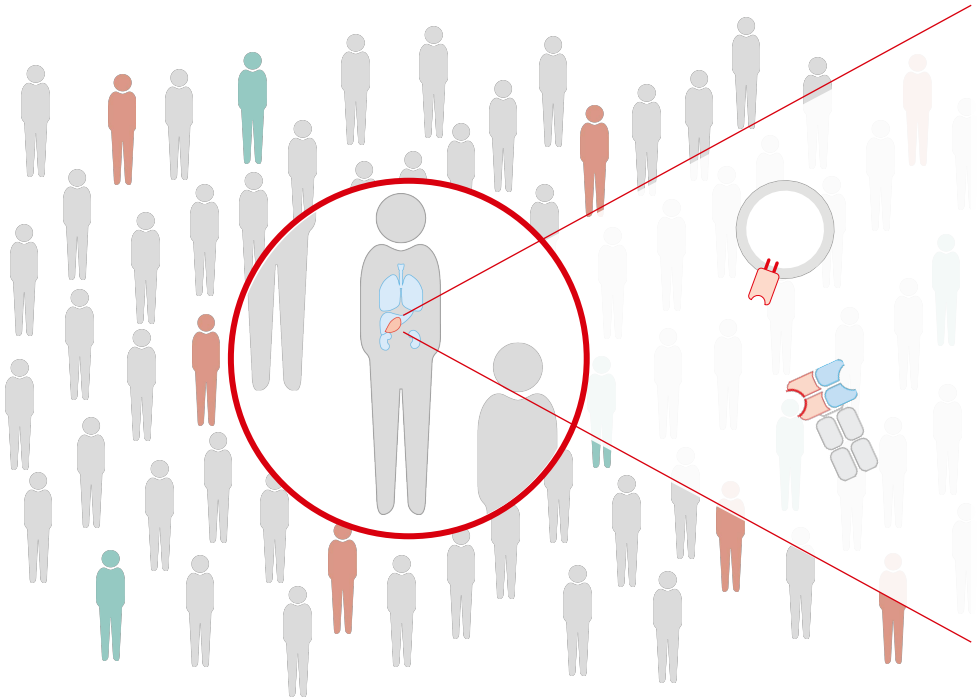
… by Intracellular Cancer Targets and Matching Right T cell Receptors (TCRs)



Modified from Chandran *et al.*, 2019

The Immatics Approach to Disrupt Current Tumor Treatment Paradigms

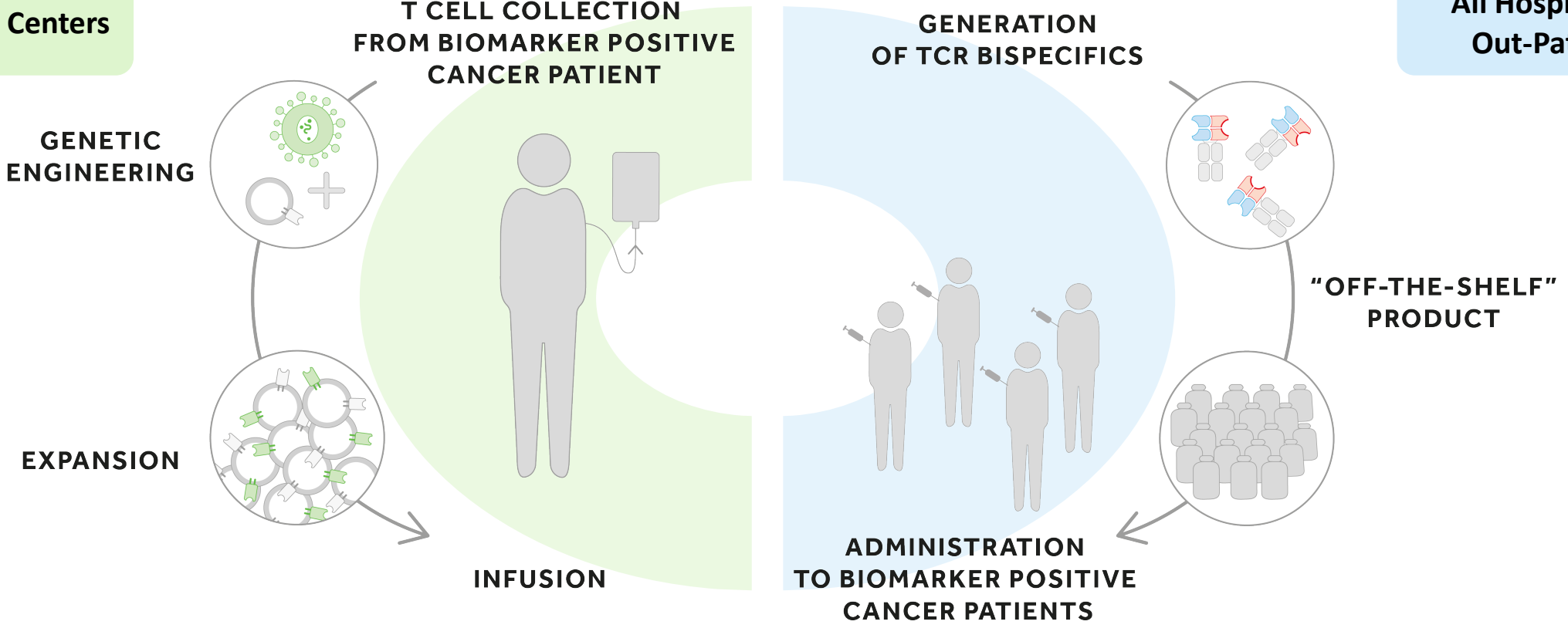
Based on 5 Defined Principals



1. True Cancer Targets & Matching Right TCRs
2. Targeted Approach in Two Distinct Modalities: Adoptive Cell Therapy & TCR Bispecifics
3. Optimized Cell Therapy Products to Enhance T cell Persistence & Efficacy
4. Disrupting the Tumor Microenvironment by Targeting Stroma
5. Combating Tumor Heterogeneity & Escape through Multi-Target Approach

Immatics' Targeted Approach in Two Distinct Modalities

	Adoptive Cell Therapy ACTengine®	TCR Bispecifics TCER®	
High tumor burden			Lower tumor burden[1]
Specialized Centers			All Hospitals & Out-Patient



[1] Patients at earlier stage of disease, de-bulked tumors, or late-stage patients with reduced tumor burden

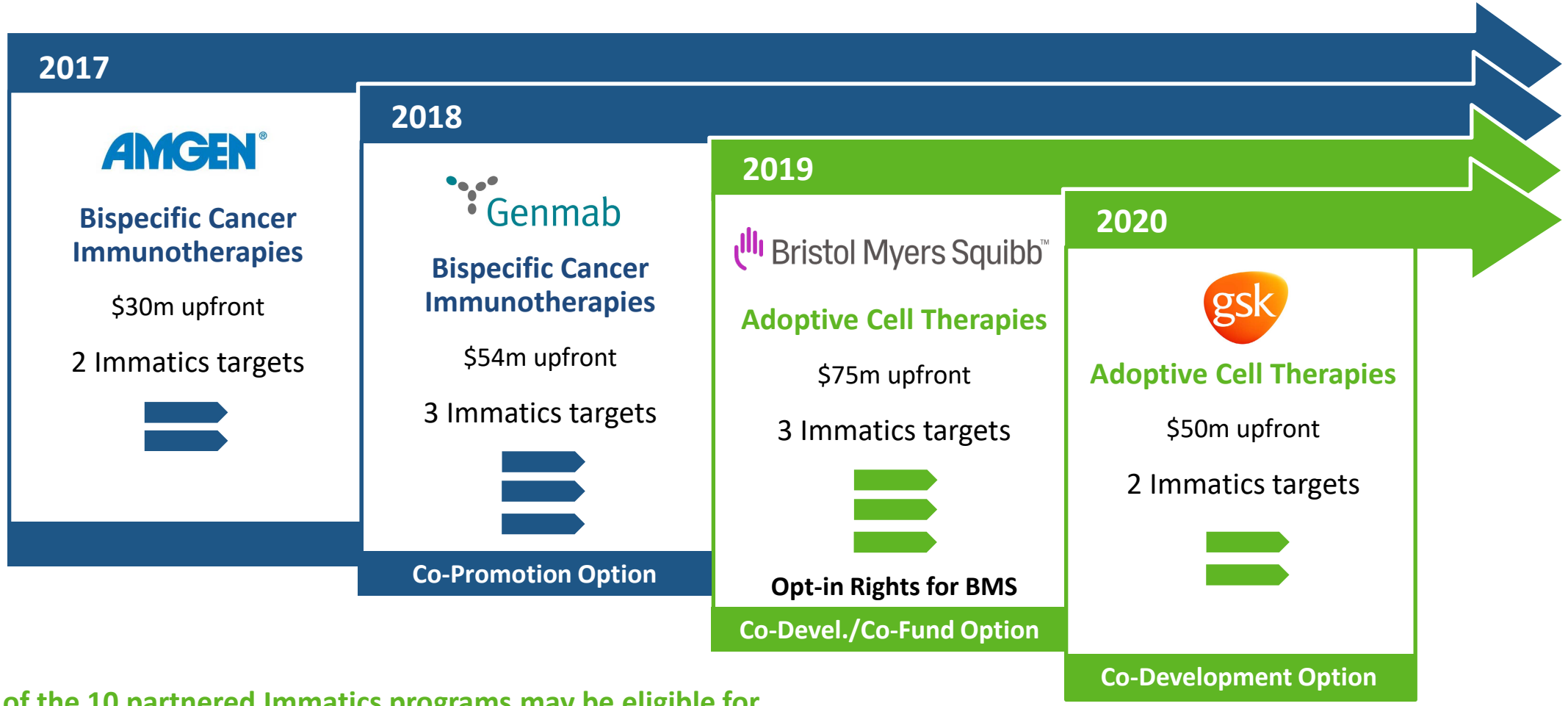
Immatics' Pipeline

Modality	Product Candidate	Status	Preclinical	Phase 1a[1]	Phase 1b[1]	Phase 2	Phase 3
Autologous ACT	ACTengine® IMA201 (MAGEA4/8)	Proprietary					
	ACTengine® IMA202 (MAGEA1)	Proprietary					
	ACTengine® IMA203 (PRAME)	Proprietary					
	ACTengine® IMA204 (COL6A3)	Proprietary					
	ACT programs (Undisclosed)	Bristol Myers Squibb					
Allogeneic ACT	ACT programs (Undisclosed)	gsk					
	ACTallo® IMA301 (Undisclosed)	Proprietary					
Bispecifics	TCER® IMA401 (MAGEA4/8)	Proprietary					
	TCER® IMA402 (Undisclosed)	Proprietary					
	Bispecific programs (Undisclosed)	AMGEN					
	Bispecific programs (Undisclosed)	Genmab					

[1] Phase 1a: Dose escalation, Phase 1b: Dose expansion

Strategic Collaborations with World-leading Industry Players

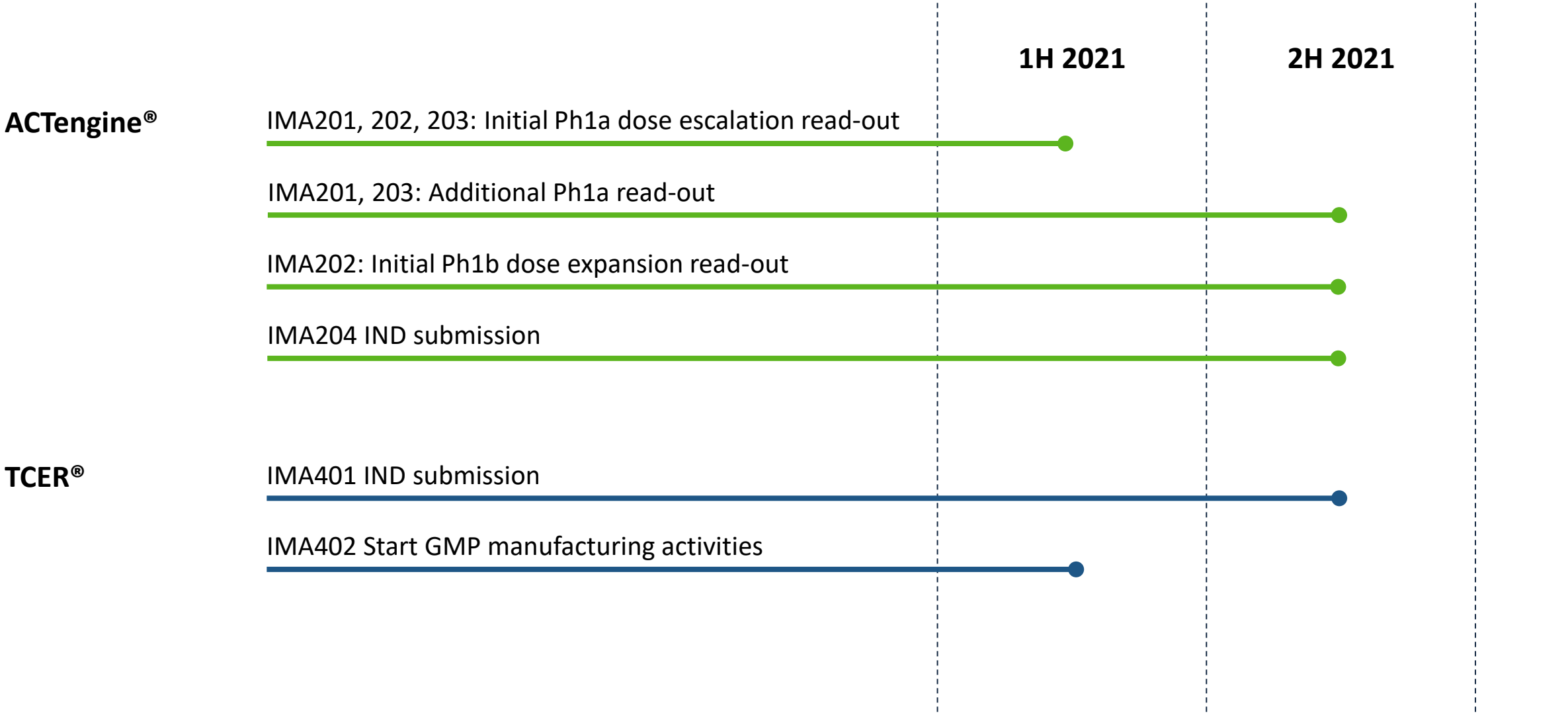
Validating Immatics' Differentiated Technologies and Expertise



Each of the 10 partnered Immatics programs may be eligible for

- >$500m aggregate milestone payments per program
- Tiered royalties per program

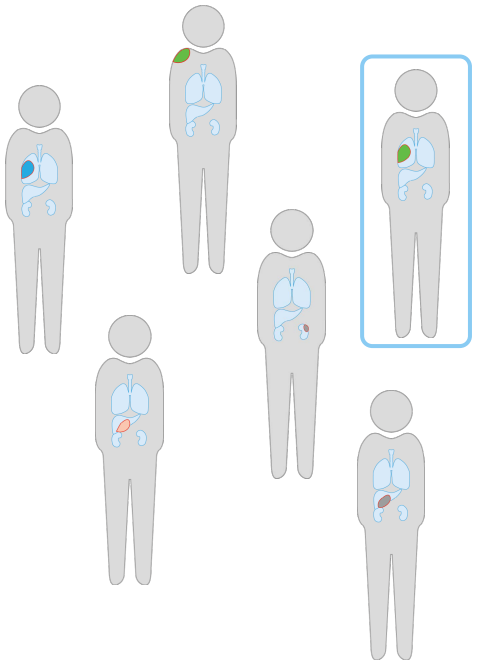
Upcoming R&D Milestones in 2021



Adoptive Cell Therapy

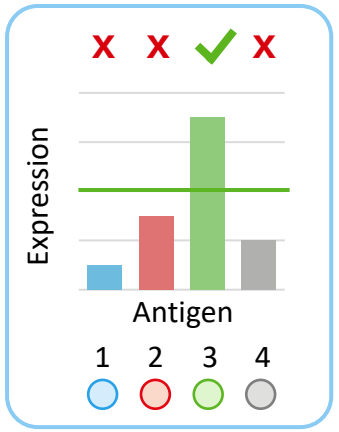
ACTengine® – Immatics' TCR-T Approach

Cancer patients

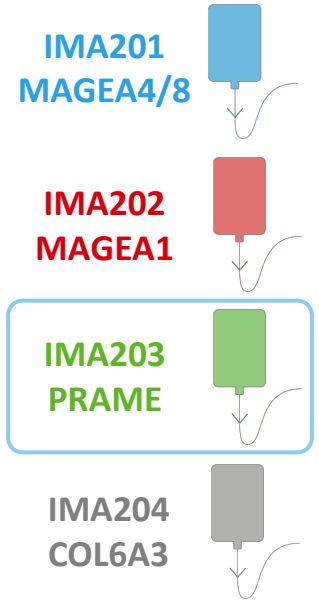


HLA-A*02 positive

Cancer target profiling via IMADetect®



Manufacturing of matching T cell product[1]



ACTengine® Key Differentiation Points

1. High-density peptide targets designed for enhanced efficacy and matching highly specific TCRs with reduced risk for off-target toxicity
2. Optimized cell therapy product through short 1-week manufacturing delivering younger T cells designed for enhanced engraftment, persistence and tumor infiltration
3. Single screening assay IMADetect® to efficiently shuttle patients to one of 4 different programs[2] reducing patient attrition

[1] IMA201, IMA202 and IMA203 in Ph1 clinical trials, IMA204 IND expected in 2H 2021

ACTengine® IMA201, IMA202 & IMA203 – Ongoing Clinical Trials

	IMA201 (MAGEA4/8)	IMA202 (MAGEA1)	IMA203 (PRAME)
Target	HLA-A*02-presented peptide identified and validated by XPRESIDENT® mass spectrometry platform		
Target Density[1]	100-1,000	50-900	100-1,000
T cell receptor (TCR)	High-affinity TCR identified and validated by XCEPTOR® platform[2]		
Patients	Target positive, HLA-A*02+ advanced cancer patients relapsing from prior therapies enrolled to all-comers trials		
Treatment	Infusion of engineered T cells followed by IL-2 administration after lymphodepletion[3]		
Selected Indications	sqNSCLC, HNSCC, bladder cancer	HCC, sqNSCLC, melanoma	Ovarian cancer, uterine cancer, melanoma, sqNSCLC
Endpoints	Primary: Safety and Tolerability; Secondary: T cell Persistence, Tumor Response		
Current Status	Phase 1a (Dose Escalation); Enrolling patients in US and Europe		
Phase 1a Dose Escalation Number of patients	2+2 trial design N=6-9 patients	2+2 trial design N=6-9 patients	3+3 trial design N=12-15 patients
Phase 1b Dose Expansion Number of patients	N=10 additional patients	N=10 additional patients	N=12 additional patients

[1] Defined as copy number per cell determined by mass spectrometry-based AbsQuant® technology; [2] Applying XPRESIDENT®-guided off-target toxicity and similar peptide screening designed for reduced cross-reactivity; [3] Lymphodepletion 40 mg/m^2 fludarabine and 500 mg/m^2 cyclophosphamide daily for 4 days.

Optimized Cell Therapy Products to Enhance T cell Persistence & Efficacy

Current Proprietary Manufacturing Protocol

Leukapheresis

ACTengine® IMA200 series: ~3 weeks

Manufacturing time (~1 week)	QC testing (Full sterility, 2 weeks)

Commercial ACTengine® expected ~2 weeks

Manufacturing time (~1 week)	Expedited QC testing (~1 week)

Infusion-Ready

Proprietary Manufacturing Process, designed to

- ✓ reduce manufacturing process to approx. 1 week
- ✓ shorten vein-to-vein time
- ✓ generate younger T cells with increased proliferative capacity
- ✓ improve engraftment and persistence in patients while utilizing smaller doses

In-house state-of-the-art cGMP Facility[1]

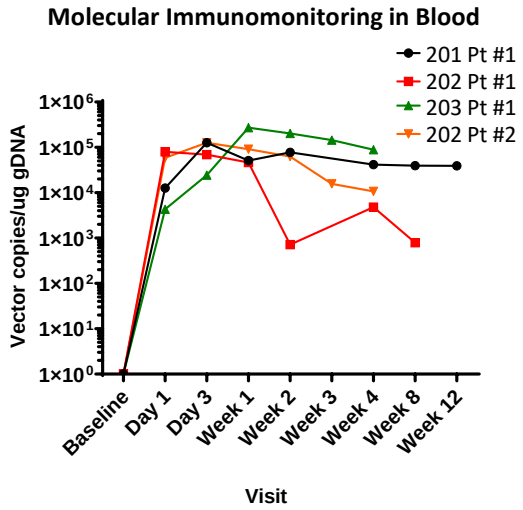
- ✓ Manufacturing by Immatics personnel
- ✓ Maximum capacity: 48 manufacturing runs/month
- ✓ Substantial in-house process development expertise

[1] Exclusive access through collaboration with UT Health, Houston, TX

Early Data in ACTengine® Trials Pointing Towards Favorable Engraftment

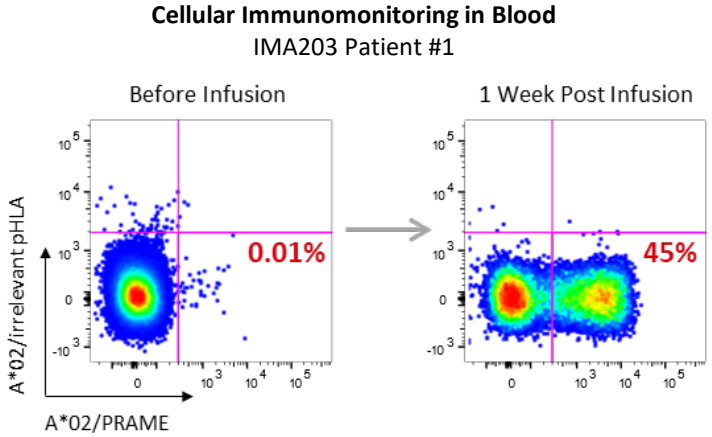
Data Read-out January 2020 – 4 Patients Treated with IMA201, IMA202 and IMA203 at Lowest Dose[1]

T cell Persistence



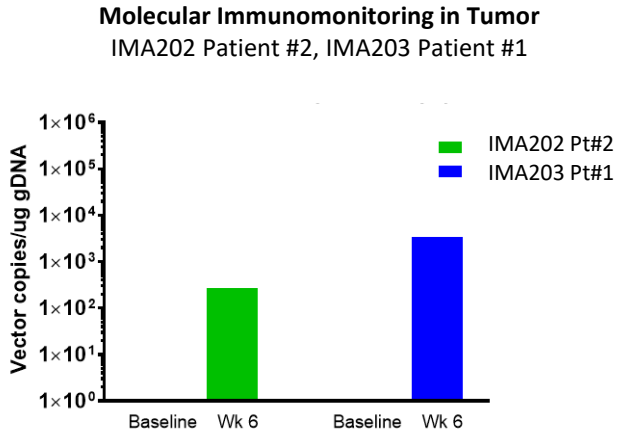
Persistence of target-specific T cells over 4+ week observation period in 4/4 patients

T cell Frequency



High frequencies (up to 45%) of persisting circulating target-specific T cells observed at lowest infused dose

Tumor Infiltration



Post-treatment tumor biopsies analysis suggests infiltration of target-specific T cells into tumor

Next Update: Combined initial data read-out expected in 1Q 2021[2]

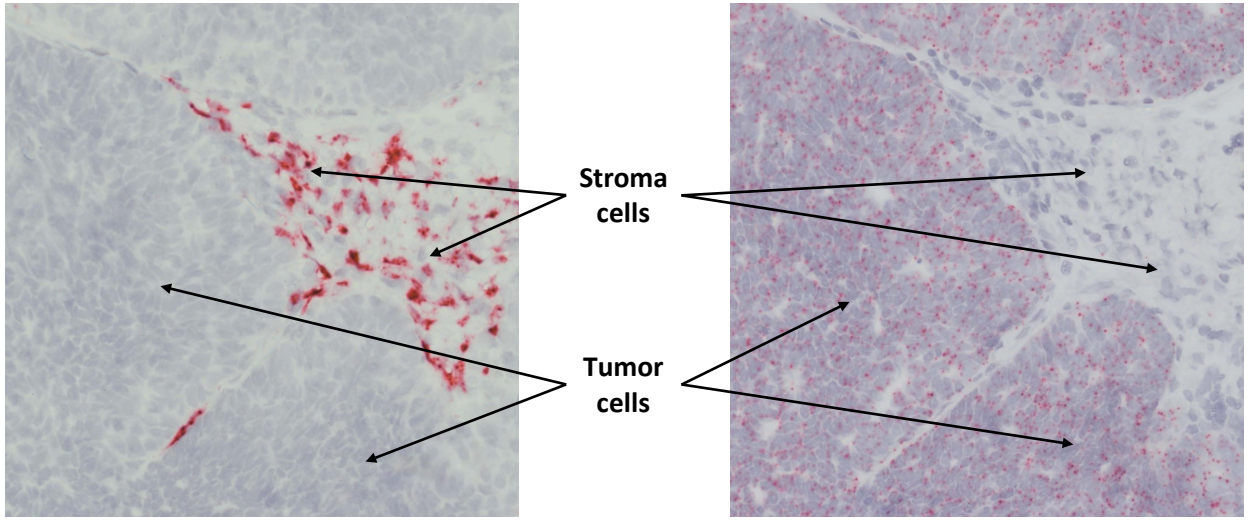
[1] Dose level 1: ~50m/m² target-specific T cells;
[2] Data update is expected to contain safety, biological efficacy and tumor response data. All trials are expected to recruit patients into the dose escalation phase of the trials, clearance of dose level 2 expected in at least one trial

IMA204 – Disrupting the Tumor Microenvironment by Targeting Stroma

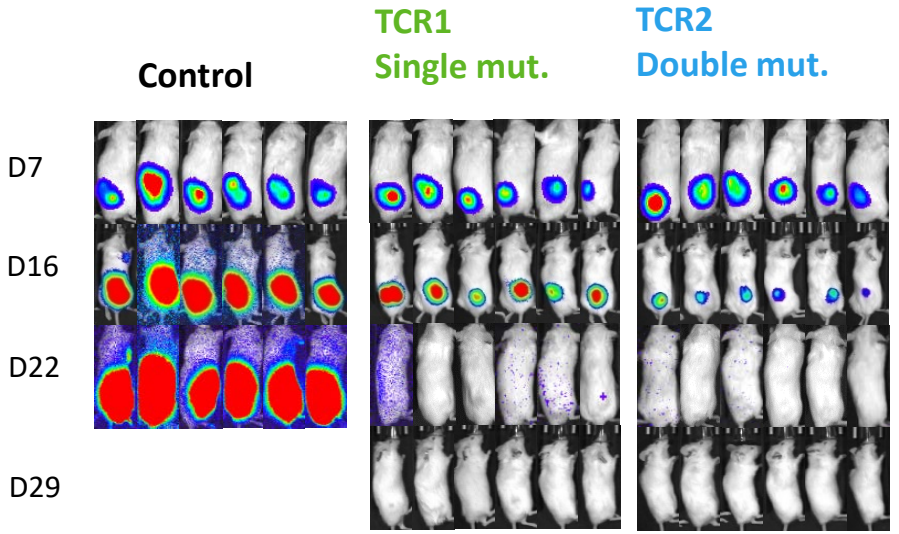
Complete Tumor Eradication *in vitro & in vivo*[1] by Affinity-enhanced IMA204 TCR Candidates

Stroma Target (COL6A3 exon 6)
in Ovarian Cancer sample

Example of a Tumor Target
in same Ovarian Cancer sample



COL6A3 exon 6 prevalently expressed at high target density in tumor stroma across many solid cancers



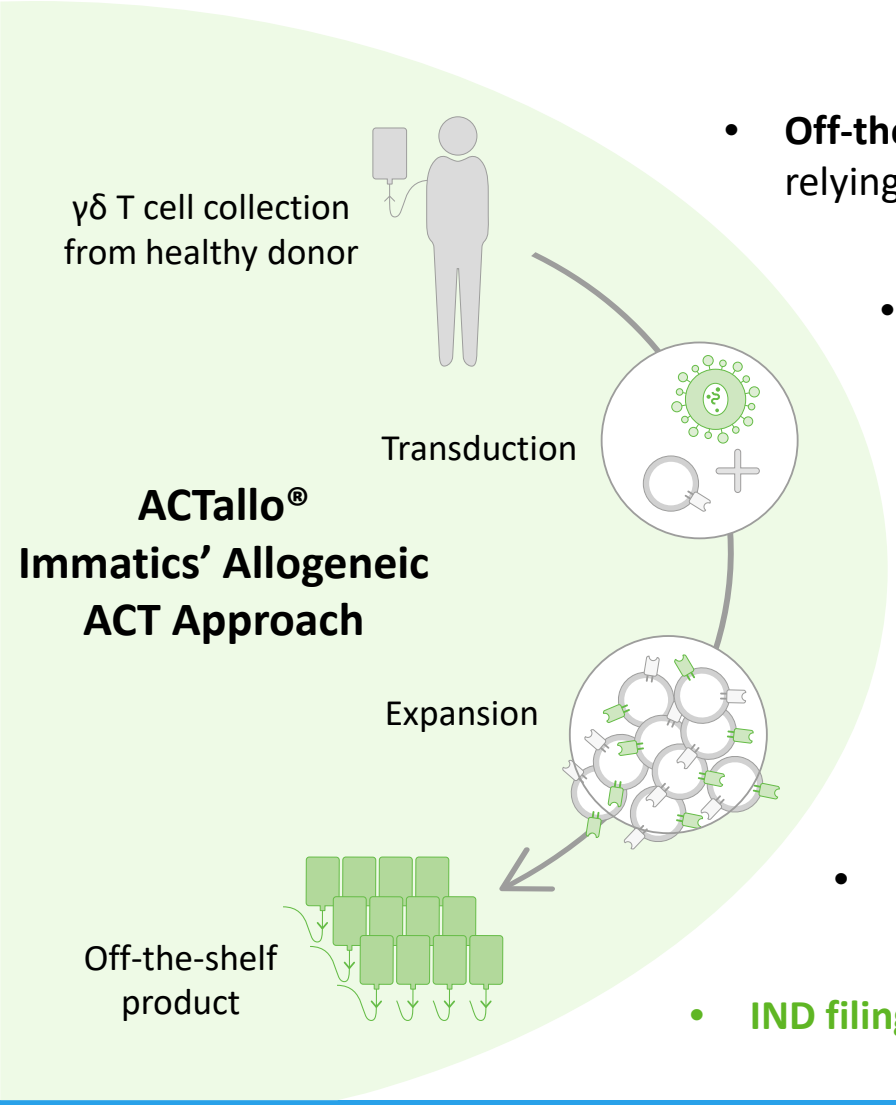
One IMA204 TCR candidate leads to full functionality of both CD8 and CD4 T cells

- Final preclinical safety evaluation of two candidate TCRs ongoing
- **IMA204 IND submission expected 2021**

[1] *In vivo* data by Jim Riley, University of Pennsylvania, control: non-transduced T cells. TCR avidity and specificity data not shown, available in IMA204 presentation on Immatics website.

ACTallo® IMA301 – Towards Off-the-shelf ACT

Effective Redirection of γδ T cells Using αβ TCR



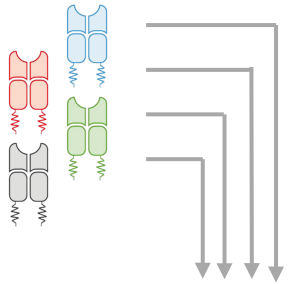
- **Off-the-shelf cell therapy**, applicable without need for personalized manufacturing and not relying on potentially encumbered immune system of patient
- **γδ T cells** are abundant, show intrinsic anti-tumor activity, naturally infiltrate solid tumors and do not cause graft-vs-host disease
- **Proprietary manufacturing protocol** delivering robust expansion of γδ T cells with the potential for hundreds of doses from one single donor leukapheresis
- **Proprietary single lentiviral vector** system (4-in-1 construct) including TCR and CD8 alpha & beta chains
- **High potency:** TCR transduced γδ T cells show similar anti-tumor activity to αβ T cells
- **IND filing targeted 2022**

Combating Tumor Heterogeneity & Escape through Multi-Target Approach

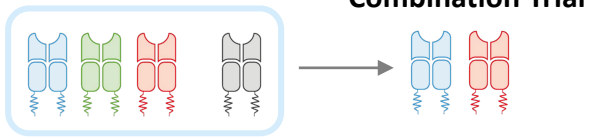
A Multi-Step Approach towards Highly Personalized Multi-TCR-T Therapy

1 **ACTolog®**

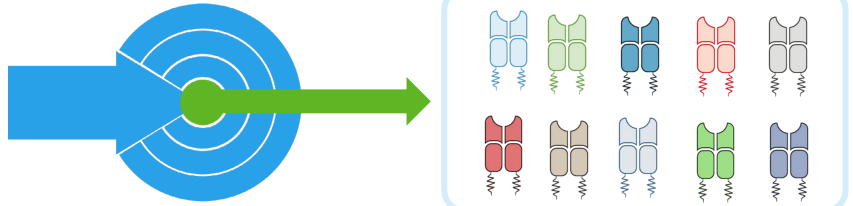
2 **ACTengine® TCR-T**



3 **ACTengine® Multi-TCR-T**



4 **Personalized Multi-TCR-T**



>200 prioritized XPRESIDENT® targets

Mission to treat every patient

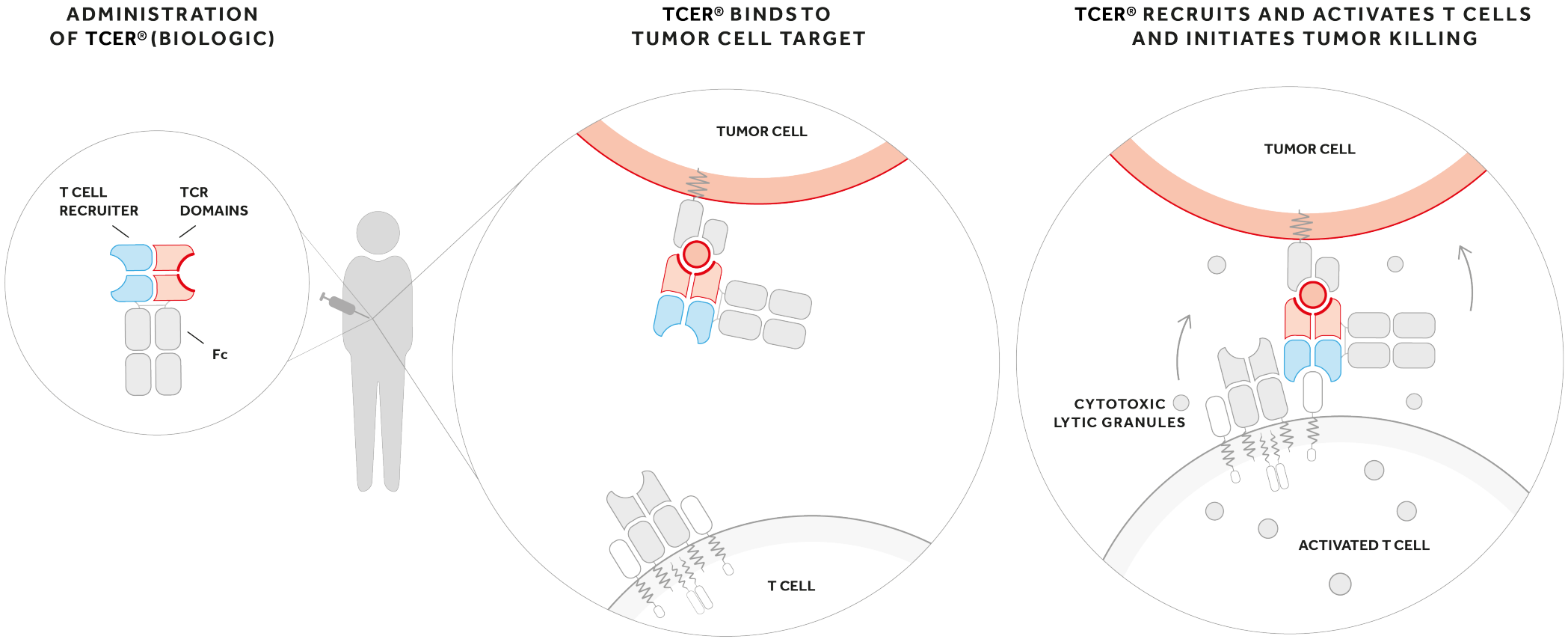
	HLA	Targets	T cells	Status	Objective
1	HLA-A2	Multiple	Endogenous	**Completed**	Demonstrate feasibility of multi-target concept
2	HLA-A2	Single	Genetically engineered	**3 trials ongoing**	Deliver significant clinical benefit for patients with certain tumor types
3	HLA-A2	Two	Genetically engineered	Mid-Term Perspective	Expand spectrum of tumor types and increase response durability
4	Multiple	Multiple	Genetically engineered	Long-Term Perspective	Treat every patient regardless of tumor and HLA type

ACTolog® headline data presented at annual SITC conference available on the Immatics website

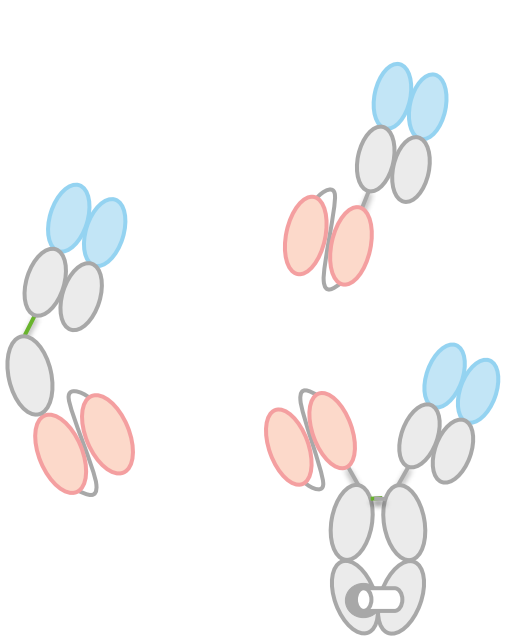
TCR Bispecifics

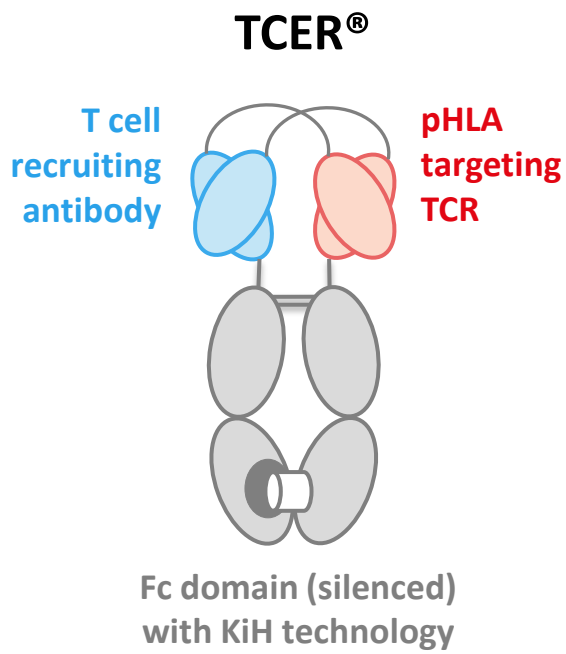
TCER® – Immatics' TCR Bispecifics

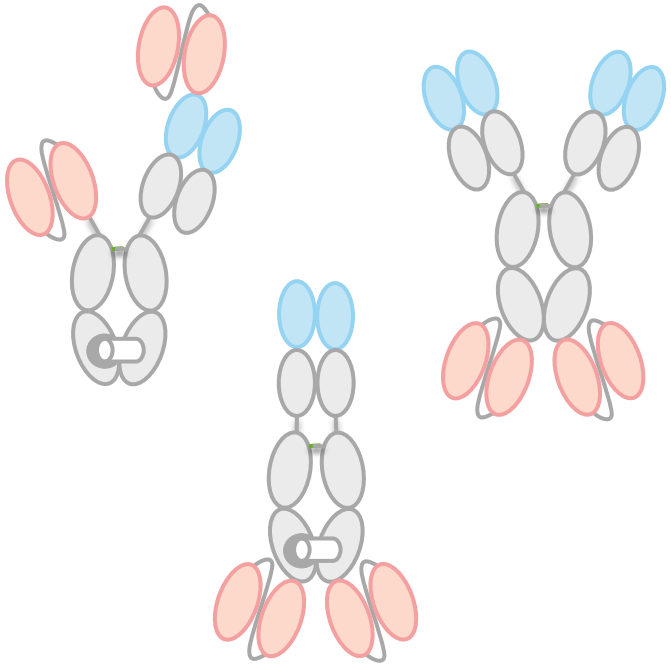
Off-the-shelf Biologics Linking Immune Cells to Tumor Cells



TCER® – Superior Proprietary TCR Bispecific Format







Potency and stability of proprietary TCER® format is superior to six alternative TCR Bispecific formats[1]

[1] Based on comparative preclinical testing

Preclinical POC for First TCER® Program IMA401

TCER® IMA401 Targeting MAGEA4/8 Results in Tumor Eradication of Established Tumors

Preclinical Proof-of-Concept Data:

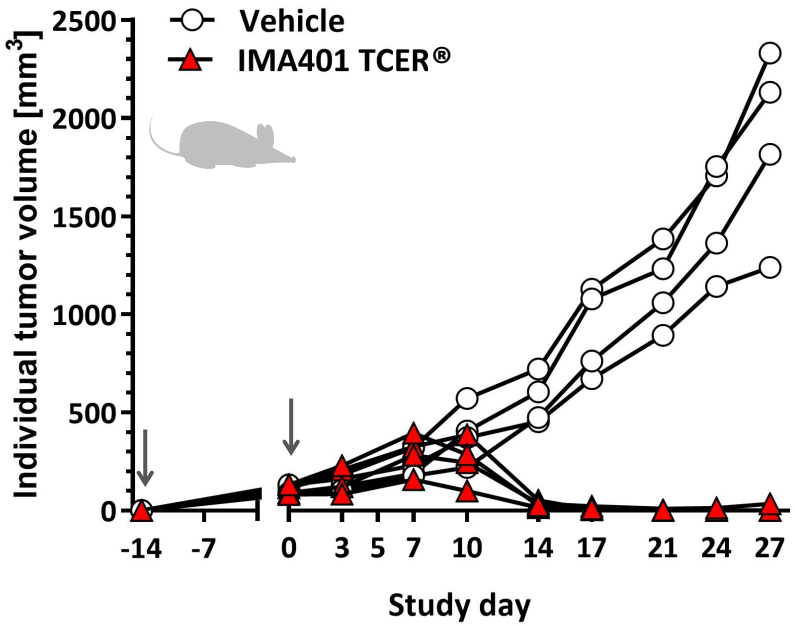
- High **affinity** TCR (2 nM) after >10,000-fold affinity-maturation via yeast display
- High **potency** at low concentrations *in vitro* and *in vivo* in two independent xenograft tumor models (NSCLC and melanoma)[1]
- Distinguished **specificity & broad therapeutic window** (≥ 1,000-fold concentration difference between tumor vs. healthy cell reactivity)
- Favorable pharmacokinetics with **10-11 days terminal half-life** in mice

Favorable CMC Characteristics:

- Positive **purity & stability** characteristics with high **production yields** (2-4 g/l)

Following scientific advice with German regulatory authority[1],
GMP CMC development is on track for IMA401 IND submission YE 2021

Patient-Derived Tumor Model[2]

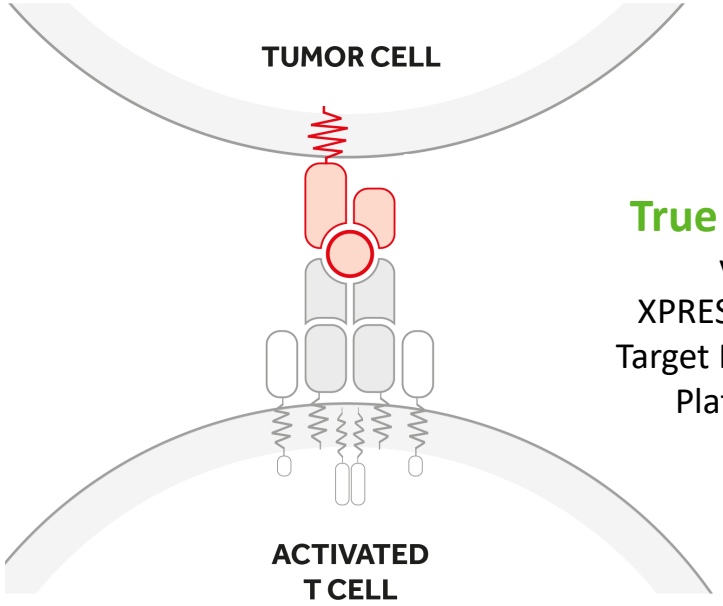


Study day -14: transplantation of tumor cells
Study day 0: human PBMC transplantation & start of IMA401 weekly treatment

[1] Equivalent to FDA pre-IND Meeting; [2] Patient-derived LXFA 1012 (NSCLC, adenocarcinoma) tumor xenograft model in NOG mice; additional data from cell line-derived Hs695T (melanoma cell line) tumor xenograft model in NOG mice showing similar data not shown here

Discovery Platforms

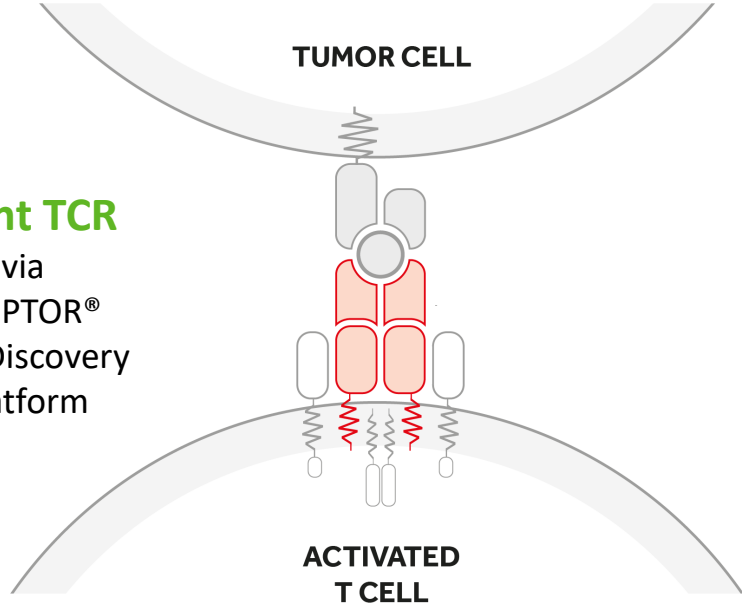
True Cancer Targets & Matching Right TCRs



True Target
via
XPRESIDENT®
Target Discovery
Platform

+

Right TCR
via
XCEPTOR®
TCR Discovery
Platform



True Targets - expressed on cancer but not or to far lower extent on normal tissue
Minimizing risk for on-target toxicity

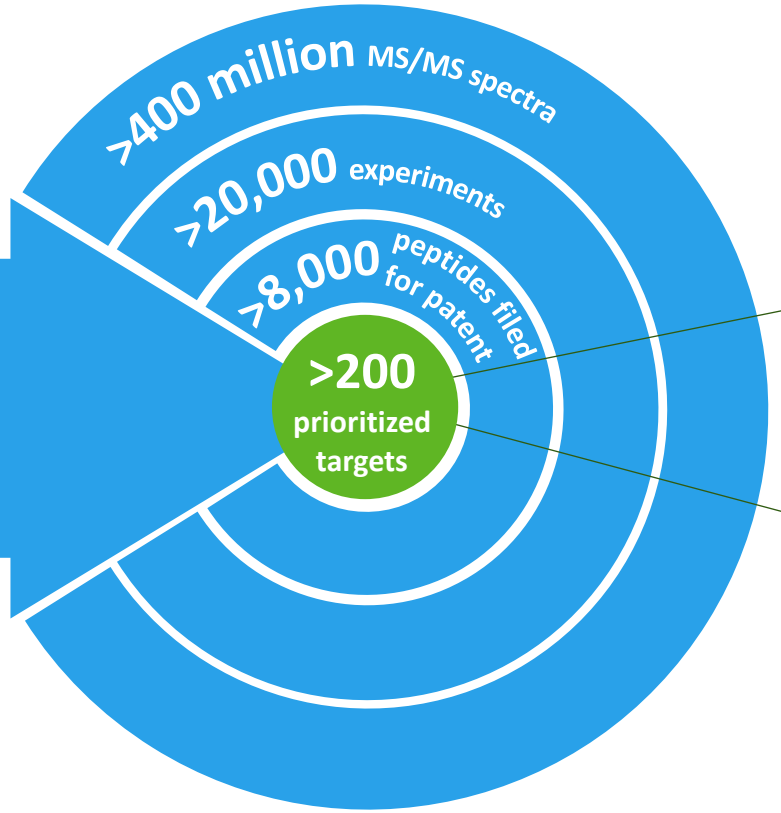
Right TCRs - highly specific and high affinity as outcome of stringent development process
Minimizing risk for off-target toxicity
(TCR cross-reactivity)

XPRESIDENT® – Discovery of True Cancer Targets

Quantitative, Ultra-Sensitive Mass Spectrometry Expertise Developed over Two Decades

pHLA Database
based on primary tissues

>2,000 cancer & normal tissues analyzed by **Quantitative, Ultra-Sensitive Mass Spectrometry**



Unbiased Identification
& characterization of the **most relevant[1] pHLA targets** in the peptide universe

✓ Secured by extensive patent estate

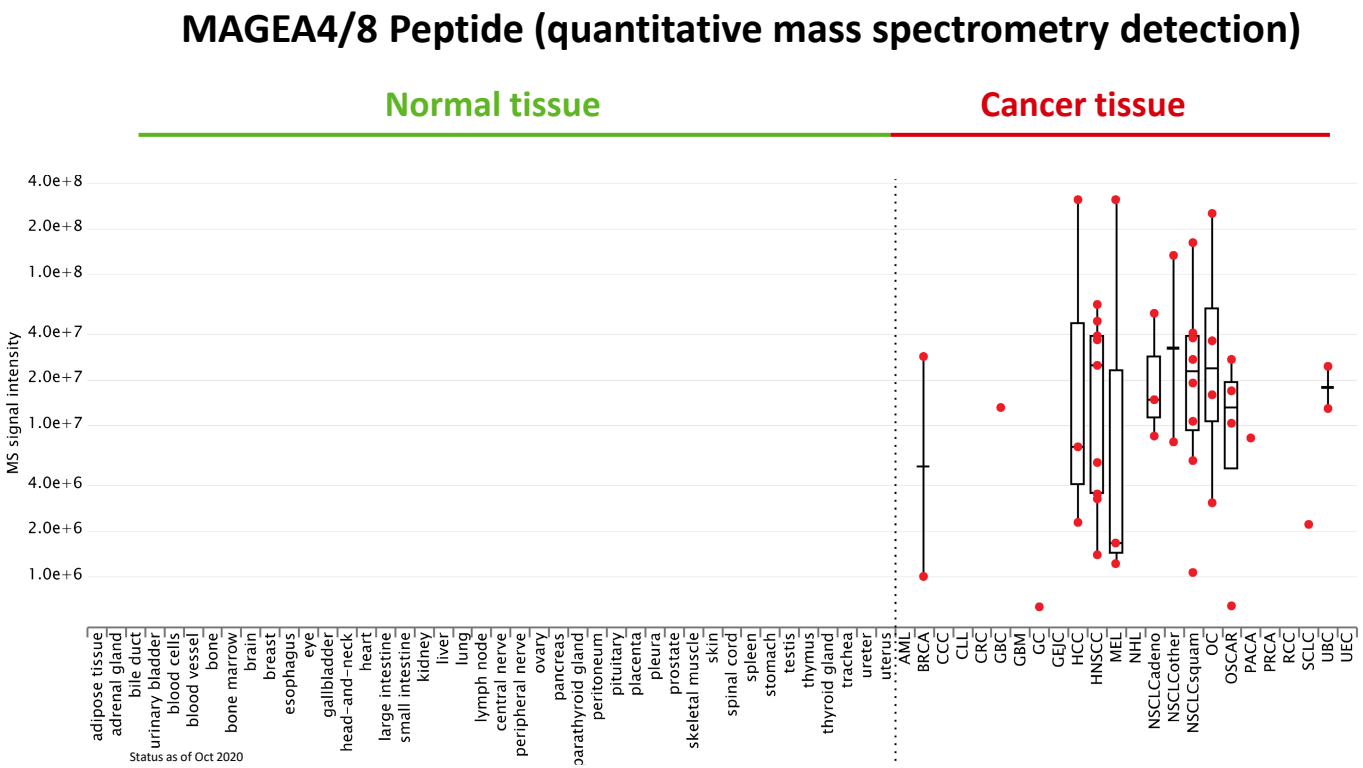
200 Prioritized Targets grouped in 3 Target Classes:

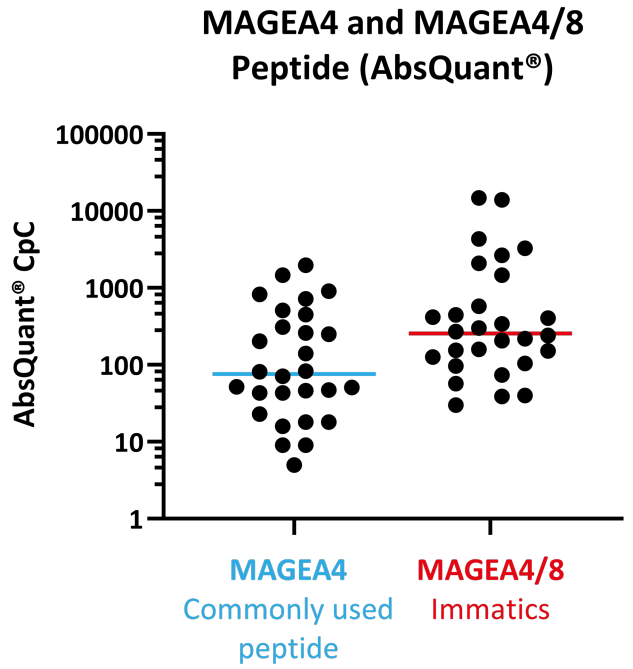
1. **Well known and characterized parent protein** e.g. MAGE family cancer testis antigens
2. **Unknown or poorly characterized parent protein** e.g. stroma target COL6A3 exon 6
3. **Crypto-targets/Neoantigens:** Novel target class which includes RNA-edited peptides & non-classical neoantigens

[1] Target expression on cancer tissue with high target levels per tumor cell but not or to a far lower extent on normal tissues

MAGEA4/8 Target in IMA201 and IMA401 Programs

Unique Target Discovery and Characterization Capabilities





MAGEA4/8 target peptide is naturally and specifically presented on native tumor tissue vs. various normal tissues

>5-fold higher target density[1] than a commonly used MAGEA4 target peptide

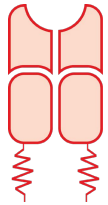
[1] Copy number comparison per tumor cell (CpC) measured on a paired-sample basis by AbsQuant®, i.e. comparing MAGEA4 vs. MAGEA4/A8 peptide presentation on same sample

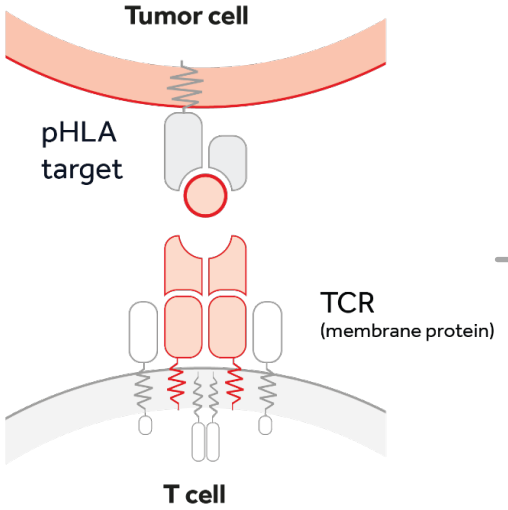
Development of the Right TCR – XCEPTOR®

Unique Cross-Talk between Target and TCR Discovery

Adoptive Cell Therapy

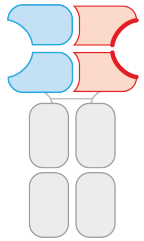
ACTengine®
ACTallo®





TCR Bispecifics

T cell engaging receptor (TCER®)



Natural or optimized natural TCR with **micromolar affinity** and favorable **specificity** profile

for genetic engineering of T cells and direct clinical application

TCR Discovery, Engineering and Validation

Fast and efficient discovery of **multiple TCRs per target**

XPRESIDENT®-guided **off-target toxicity screening** to deselect cross-reactive TCRs during discovery

Affinity-maturated natural TCR variable domains with **nanomolar affinity** and favorable **specificity** profile

XPRESIDENT®-guided **similar peptide counterselection** during maturation to deselect cross-reactive TCRs

Basis for highly potent TCR Bispecifics format

XCEPTOR® TCR Validation – Early De-selection of Cross-Reactive TCRs

Through Unique Interplay of XPRESIDENT® and XCEPTOR® Platforms

Clinical fatalities have occurred in TCR-T trials using a titin cross-reactive TCR (published 2013)

XPRESIDENT®-guided toxicity screening to prevent safety issues

Candidate target/ TCR

Determination of TCR binding motif

XPRESIDENT® search for relevant off-target peptides

XPRESIDENT® database:
Titin peptide ESDPIVAQY strongly **presented** on all investigated HLA-A*01+ normal heart tissue samples.

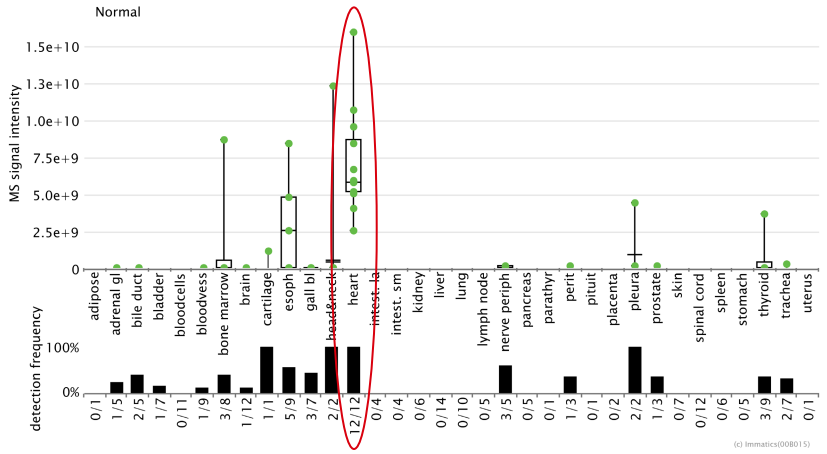
MAGE A3 EVDPIGHLY (target)

ExDPIxxxY

EPDPILDNY *C19orf26*

ESDPIVAQY ***Titin***

EVDPIRHYY *MAGE B18*



XPRESIDENT®-guided toxicity screening

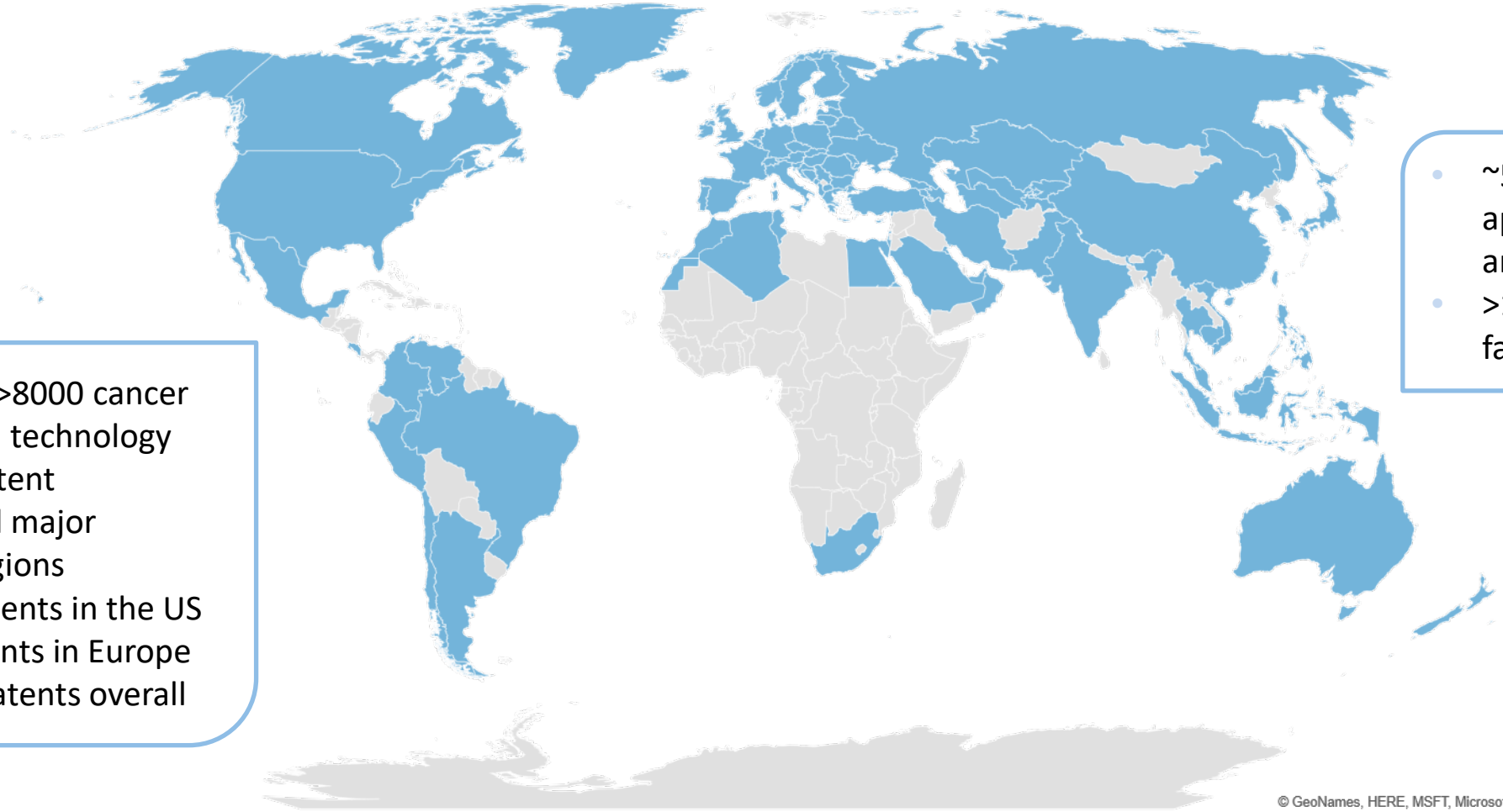
- Direct *in situ* evidence of relevant off-target peptide presentation
- Fast and straightforward analysis
- Unbiased view on relevant organs for all targets

- **"Titin Case" fatalities could be preventable**

Corporate Information & Milestones

Continuously Growing IP Portfolio

Immatics' Patent Estate – Territorial Coverage



- ~5000 applications and patents
- >100 patent families

- IP protection on >8000 cancer targets, TCRs and technology
- Immatics files patent applications in all major countries and regions
- >320 granted patents in the US
- >15 granted patents in Europe
- >1550 granted patents overall

Strong, Focused and Highly Integrated Trans-Atlantic Organization

Tübingen, Germany, ~150 FTEs

Senior Leadership, Research and Development (XPRESIDENT®, XCEPTOR®, TCER®), Translational Development, Clinical Operations, Finance, HR, IT, QM

Houston, Texas , 80 FTEs

Senior Leadership, Research and Development (Adoptive Cell Therapy), CMC, Clinical Operations, Regulatory Affairs, QA/QC, HR, Investor Relations

Munich, Germany, 20 FTEs

Senior Leadership, Business Development, Intellectual Property, Regulatory Affairs, Communications

Experienced Global Leadership Team Across Europe and the US

Harpreet Singh
Chief Executive Officer
Co-Founder
20 yrs biotech experience

Arnd Christ
Chief Financial Officer
20 yrs biotech experience
(Probiodrug, NovImmune, Medigene, InflaRx)

Cedrik Britten
Chief Medical Officer
>10 yrs pharma & biotech experience
(BioNTech, GSK)

Carsten Reinhardt
Chief Development Officer
>20 yrs pharma & biotech experience
(Micromet, Roche, Fresenius)

Steffen Walter
Chief Technology Officer
Co-Founder Immatics US
>15 yrs biotech experience

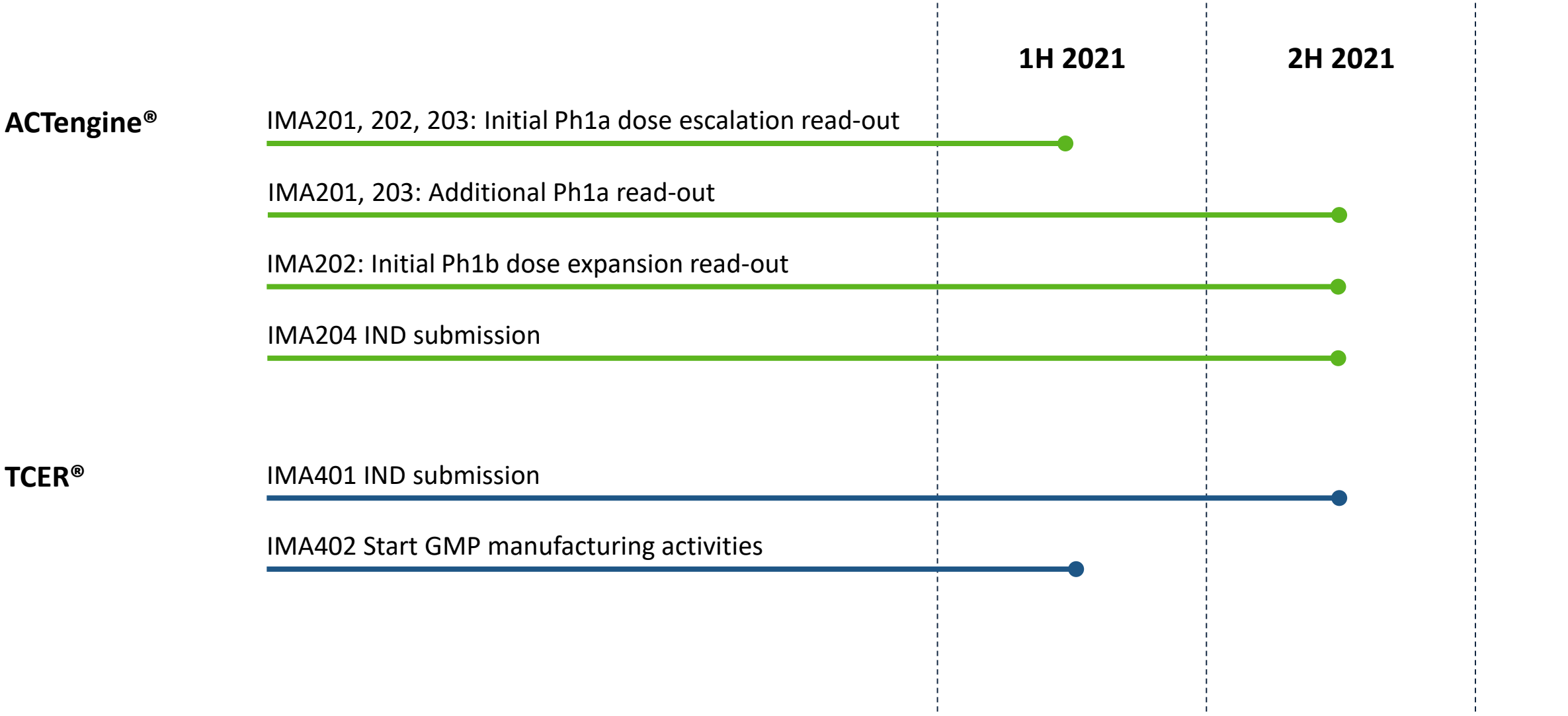
Toni Weinschenk
Chief Innovation Officer
Co-Founder
> 15 yrs biotech experience

Rainer Kramer
Chief Business Officer
25 yrs pharma & biotech experience
(Amgen, MorphoSys, Jerini, Shire, Signature Dx)

Edward Sturchio
General Counsel & Corporate Secretary
>15 yrs pharma & biotech experience
(Schering, Merck, Novartis, Advanced Accelerator Applications, Abeona Therapeutics)

Jordan Silverstein
Head of Strategy
10 yrs biotech experience
(Advanced Accelerator Applications, InflaRx)

Upcoming R&D Milestones in 2021



Immatics Key Take-Aways

- Two Distinct Treatment Modalities: ACT & TCR Bispecifics
- Multiple ongoing Ph1a dose escalation clinical trials:
  Initial clinical data read out in Q1 2021 and additional clinical data in H2 2021
- Proprietary cell manufacturing resulting in younger T cells for better engraftment & persistence
- Leading TCR Bispecifics platform with antibody-like stability and half-life
- Differentiated discovery platforms secured by a broad patent estate including >200 prioritized targets
- Multiple strategic collaborations with world-leading industry players incl. Amgen, Genmab, BMS and GSK
- Strong cash position of US$ 304M (as of Sep 30, 2020) to deliver on key clinical and non-clinical milestones

Thank you

www.immatics.com

Please contact us via partnering@immatics.com to learn more about partnering and licensing opportunities utilizing our platform technologies XPRESIDENT®, XCEPTOR®, IMADetect®, AbsQuant® and TCR Scout®.