Takeda Oncology

Inspiration From Patients. Innovation From Everywhere.

June 8, 2021 EDT / June 9, 2021 JST

Takeda Pharmaceuticals Company Limited

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Better Health, Brighter Future

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Today's Presenters

Teresa Bitetti

President, Global Oncology Business Unit

Chris Arendt, PhD

Head, Oncology Therapeutic Area Unit

Agenda

June 8, 2021 EDT
June 9, 2021 JST

6:30 – 6:35 p.m. Takeda Oncology Overview
6:35 – 6:50 p.m. Commercial
6:50 – 7:15 p.m. R&D
7:15 – 7:45 p.m. Q&A

All times are in Eastern Daylight Time (EDT)

Takeda Oncology Overview and Portfolio Updates

Teresa Bitetti

President, Global Oncology Business Unit

Takeda Pharmaceuticals International Co.

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Better Health, Brighter Future

We Aspire To Cure Cancer

OUR FOUNDATION

Demonstrated leadership in the treatment of hematologic cancers and solid tumors

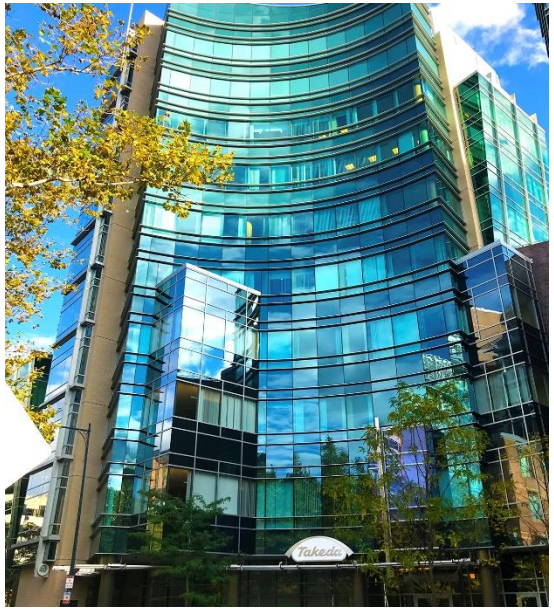
OUR RESEARCH

Harnessing the power of innate immunity to enhance and broaden the impact of immunotherapy

OUR PARTNERS

Differentiated immuno-oncology platforms and symbiotic partnerships

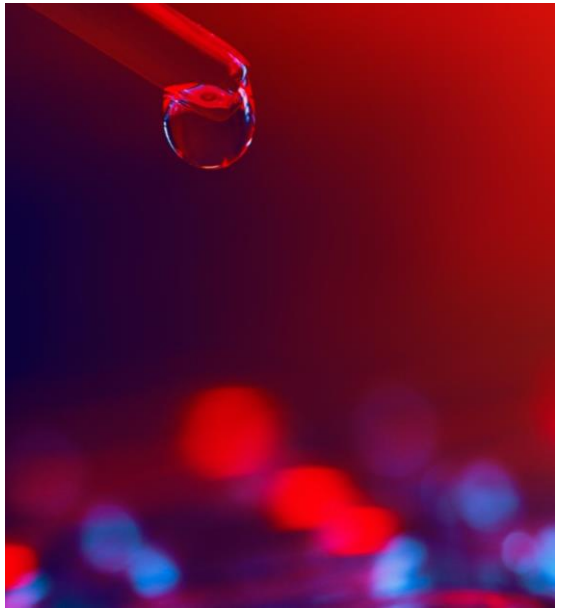
Oncology Business Unit Is Structured Within Takeda To Meet the Unique Needs of the Cancer Community



Commercial and R&D co-located for seamless collaboration

Built for speed and agility; resourced like a large pharma company

Proven growth and consistent performance

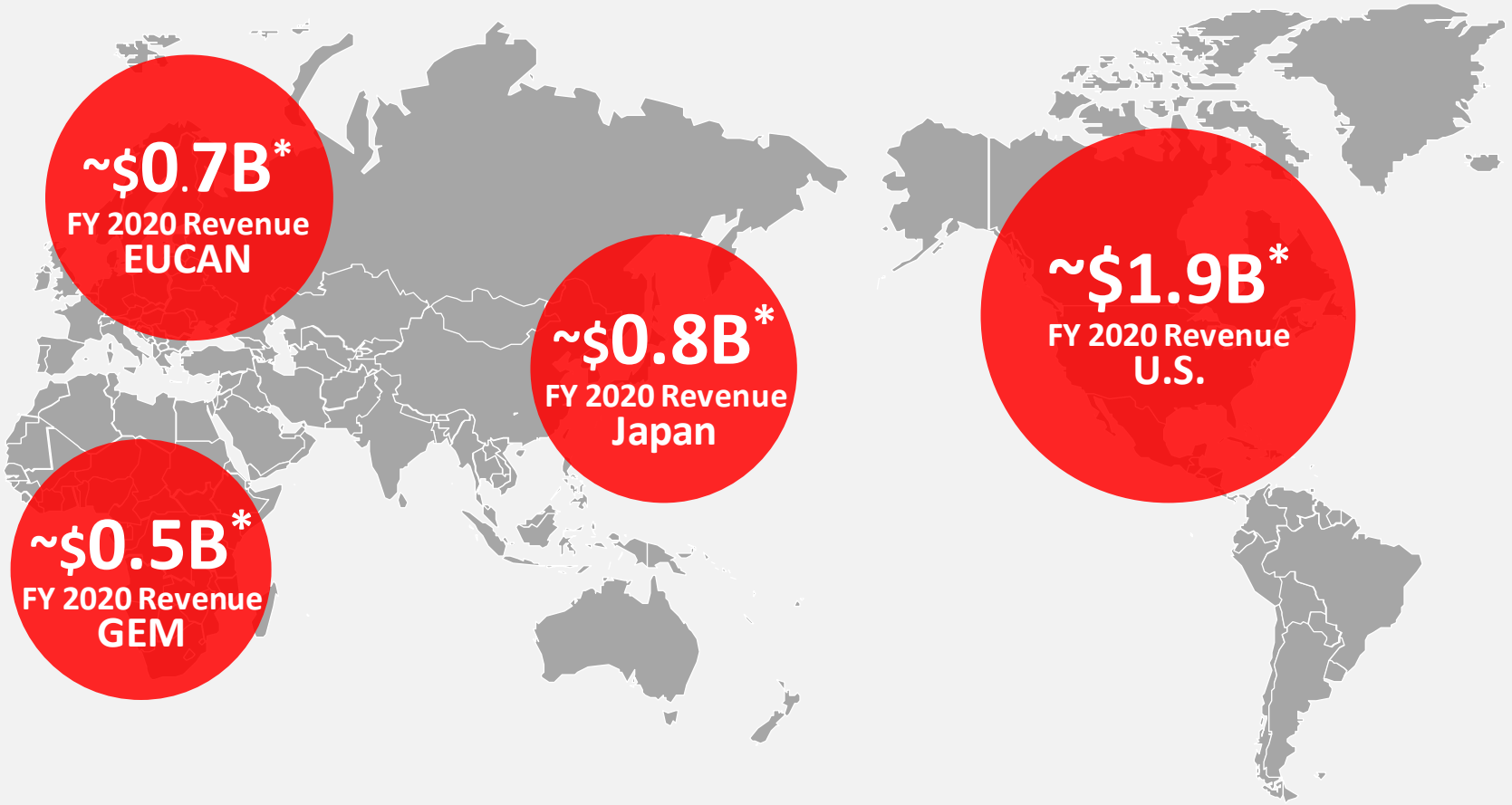


Diverse and robust pipeline

Reaching Patients Globally Through Strong Presence Across the World

Global Oncology Revenue FY20: ~$3.9B* USD

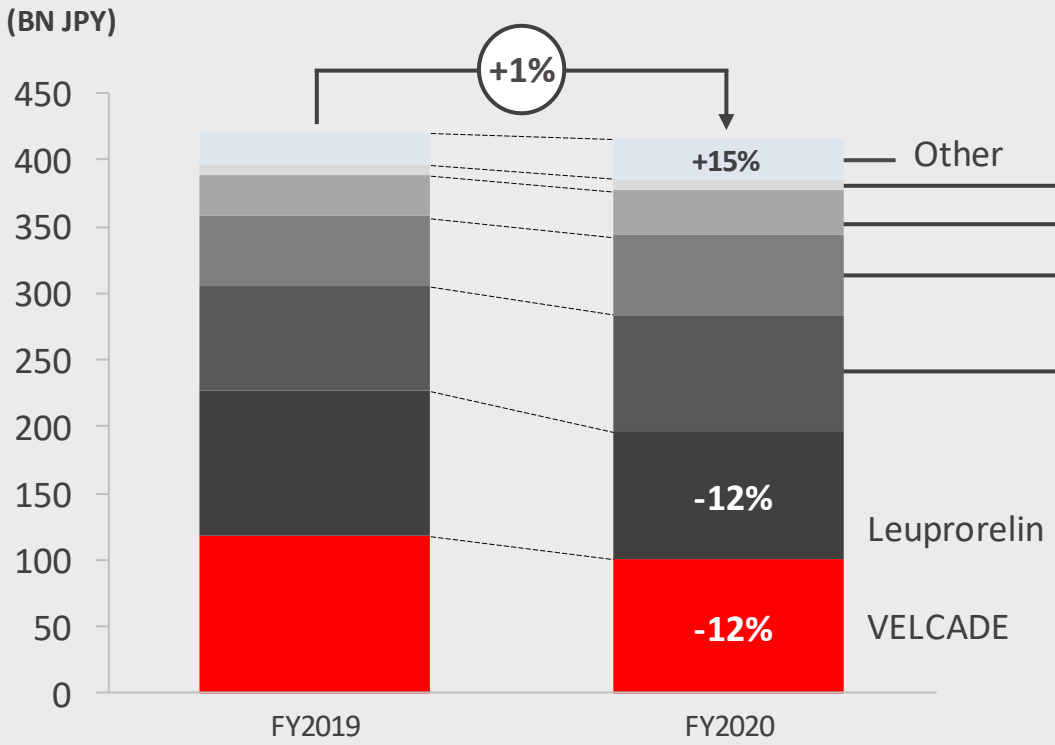
Present in more than 70 countries with our oncology medicines



*USD included for reference, calculated at JPY/USD of 106
EUCAN：Europe & Canada, GEM: Growth and Emerging Market

Strong Growth for Promoted Oncology Brands

ONCOLOGY PORTFOLIO
FY2020 REVENUE



Absolute values are presented on an IFRS (reported) basis;
Year-on-year changes are underlying growth

ALUNBRIG™ BRIGATINIB 30mg TABLETS — **+24%** **$83MM USD[2]**

ICLUSIG® (ponatinib) tablets 45mg / 30mg / 15mg / 10mg — **+11%** **$323MM USD[2]**

ADCETRIS®[1] brentuximab vedotin — **+20%** **$560MM USD[2]**

NINLARO® (ixazomib) capsules 4mg | 3mg | 2.3mg — **+16%** **$825MM USD[2]**

1. ADCETRIS is in-licensed from Seagen Inc.; Takeda has development and marketing rights outside of the U.S. and Canada
2. USD included for reference, calculated at JPY/USD of 106

ALUNBRIG First-Line Launches Garner Growth in U.S. & EU Against Backdrop of Declining Diagnoses due to COVID-19

ALUNBRIG growth driven by uptake in first-line treatment of patients with **ALK+ metastatic non-small cell lung cancer (mNSCLC)** and multiple first-line launches in new markets

Expanding new patient share in the U.S. following 1L FDA approval in May 2020

Achieved positive reimbursement outcomes in all major EU markets following EC approval in April 2020

Japan positive reimbursement outcome and launch in April 2021*

* The picture shows a product line-up which is different to the one available in Japan. The 180mg dose shown in the image has not been approved in Japan.

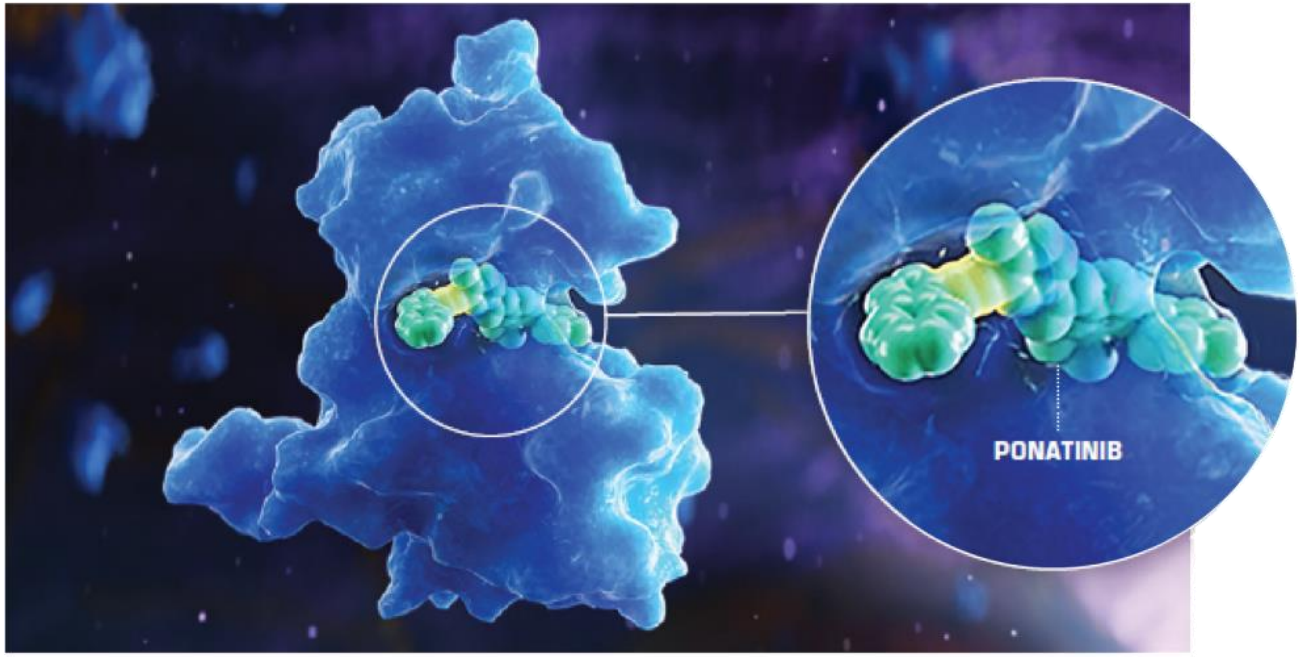
ICLUSIG Label Expansion and Recent Successful Launch Drive Growth in U.S.

ICLUSIG® (ponatinib) tablets 45mg / 30mg / 15mg / 10mg

U.S. sNDA approved end of December 2020 for adult CP-CML patients with resistance or intolerance to at least two prior tyrosine kinase inhibitors

Updated label includes new dosing regimen that optimizes benefit-risk profile

Preparing for Phase 3 PhALLCON registrational data readout in 2H FY21



ICLUSIG is the **only** 3rd generation TKI engineered to inhibit BCR-ABL **regardless of mutation status**

Preparing to launch two NMEs

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Mobocertinib: Potential First ***Oral*** Therapy for Patients With EGFR Exon20 Insertion Mutation mNSCLC

Unmet Need

- EGFR Exon20 insertion mutations are present in ~5-12% of EGFR-mutated NSCLC tumors (2% of all NSCLC)
- There are **no targeted oral treatment options**. Current EGFR TKIs + chemo provide minimal benefit

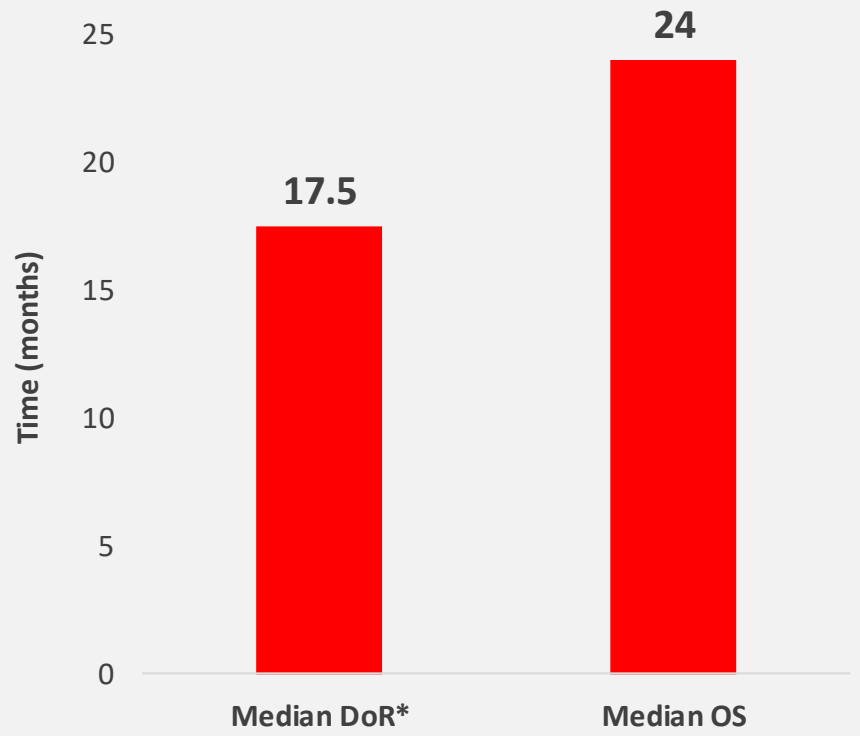
Mobocertinib

- Received **Breakthrough Therapy Designation** and **Priority Review** from U.S. FDA
- Potential to be **first and only oral therapy** with once-daily dosing to target EGFR Exon20 insertion+ mNSCLC
- Registration enabling study demonstrated **clinically meaningful and durable responses** with a median overall survival of 24 months

Launch Readiness

- **HCP education** on EGFR Exon20 unmet needs and finalizing care management strategy and tactics
- Partnerships with **ThermoFisher** and **Foundation Medicine** to develop CDx for mobocertinib

2021 ASCO ANNUAL MEETING | **Data from Phase 1/2 trial[1]**



*per independent review committee (IRC)

Potential 2L approval – PDUFA Oct 2021 | China NDA submission on track

1: Phase 1/2 trial of mobocertinib (TAK-788) orally administered in patients with EGFR Exon20 insertion+ mNSCLC who received prior platinum-based chemotherapy

Pevonedistat Aims To Transform Survival Outcomes in Higher-Risk MDS and AML

Unmet Need

- In **higher-risk MDS, there have been no novel treatment advances** in more than a decade. Current treatment options are limited and outcomes remain poor, **with average survival less than 15 months**
- Economic burden of supportive care is substantial: Hospitalizations are common and many patients are transfusion dependent

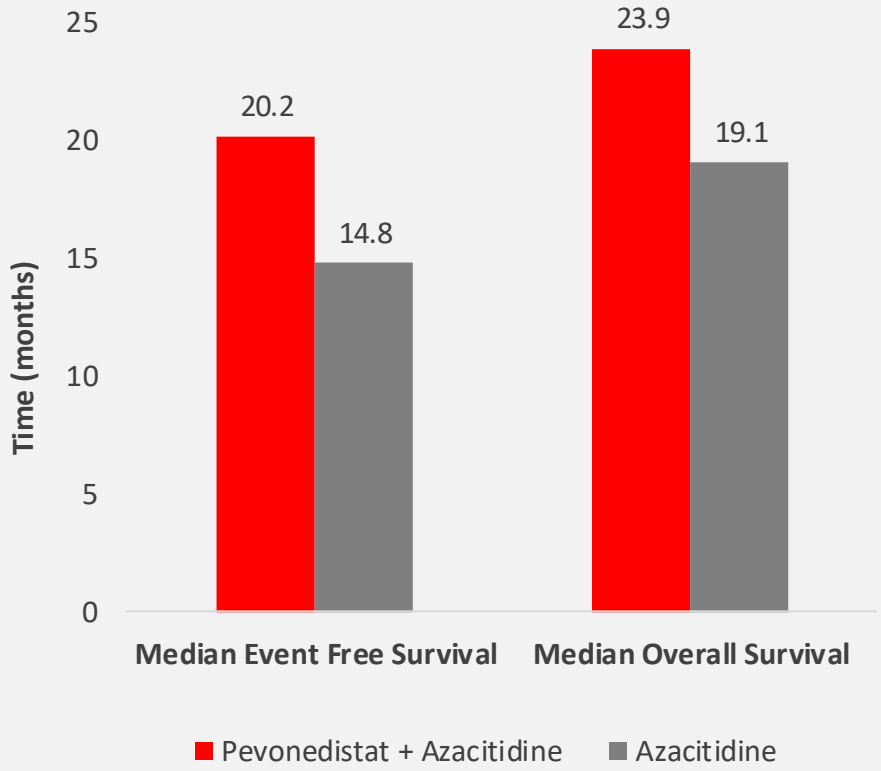
Pevonedistat

- Pevonedistat could **extend survival and delay transformation to AML**, with a safety profile similar to azacitidine alone
- Received **Breakthrough Therapy Designation** from U.S. FDA
- Phase 2 data showed **encouraging results**; suggest benefit in **event-free and overall survival** in higher-risk MDS

Launch Readiness

- HCP education around treatment options and emerging therapies in higher-risk MDS
- Preparations for **PANTHER data presentation** and **global regulatory submissions**

EFS and OS favored pevonedistat + azacitidine among patients with higher-risk MDS according to IPSS-R*



*IPSS-R, Revised International Prognostic Scoring System
Sekeres MA, et al. Blood 2020;136(Suppl. 1):653.

Enrolling in PEVOLAM[1] and PEVENAZA[2] trials to evaluate benefit of combinations in unfit AML

1: Randomized Phase 3 Study Comparing Azacitidine Plus Pevonedistat Versus Azacitidine in Older/Unfit Patients with Newly Diagnosed Acute Myeloid Leukemia Who Are Ineligible for Standard Induction Chemotherapy
2: Randomized Phase 2 Study of Pevonedistat, Venetoclax, and Azacitidine Versus Venetoclax Plus Azacitidine in Adults With Newly Diagnosed Acute Myeloid Leukemia Who Are Unfit for Intensive Chemotherapy

Several Potentially Transformational Opportunities in the Oncology Pipeline

Late-Stage Pipeline

FY21 — **TARGET APPROVAL[1]** — **FY22**

- **mobocertinib** — *EGFR Exon20 insertion+ mNSCLC[2]*
- **pevonedistat** — *Higher-Risk MDS Unfit AML*

Early-Stage Pipeline

Cold-to-Hot

- **TAK-981** — *Multiple Cancers*
- **TAK-605** — *Multiple Cancers*
- **TAK-676** — *Solid Tumors*
- **TAK-252** — *Solid Tumors*
- **TAK-573** — *Multiple Myeloma*

PROOF OF CONCEPT FY21 (TAK-981, TAK-605, TAK-676, TAK-252)

PROOF OF CONCEPT FY21 (TAK-573)

Redirected Immunity

- **TAK-007** — *Hematologic Malignancies*
- **TAK-102** — *Solid Tumors*
- **TAK-940** — *B-Cell Malignancies*
- **TAK-186** — *Solid Tumors*

1. All timelines are current as of June 8, 2021 and are subject to change due to COVID-19. Projected approval dates depend on data read-outs; some target approval dates assume accelerated approval
2. Projected approval date assumes filing on Phase 1/2 data

Takeda Oncology R&D Overview

Chris Arendt, PhD
Head, Oncology Therapeutic Area Unit

Takeda Pharmaceuticals International Co.

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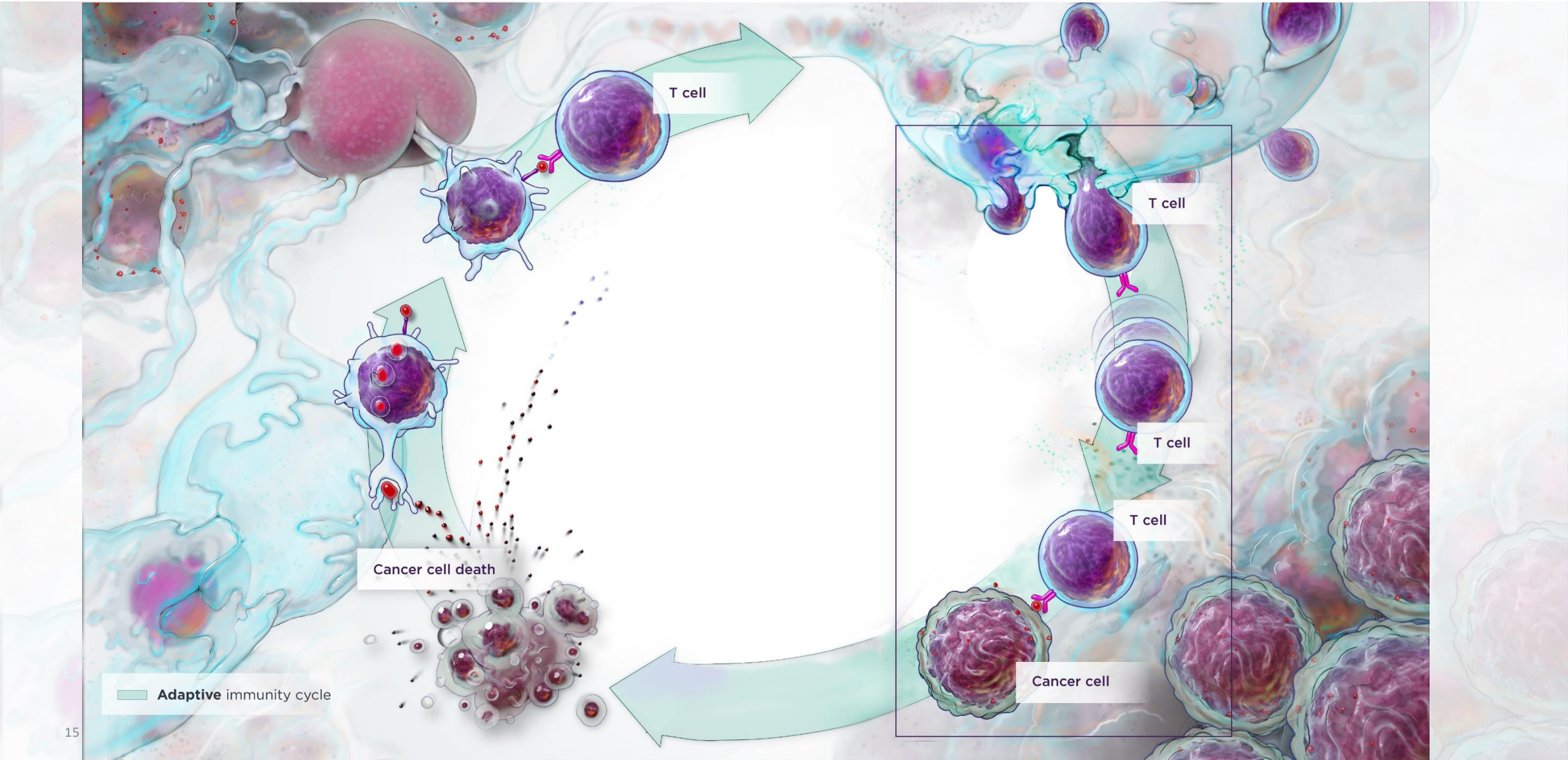
Applying the Untapped Power of Innate Immunity To Enhance the Potential of Cancer Immunotherapies



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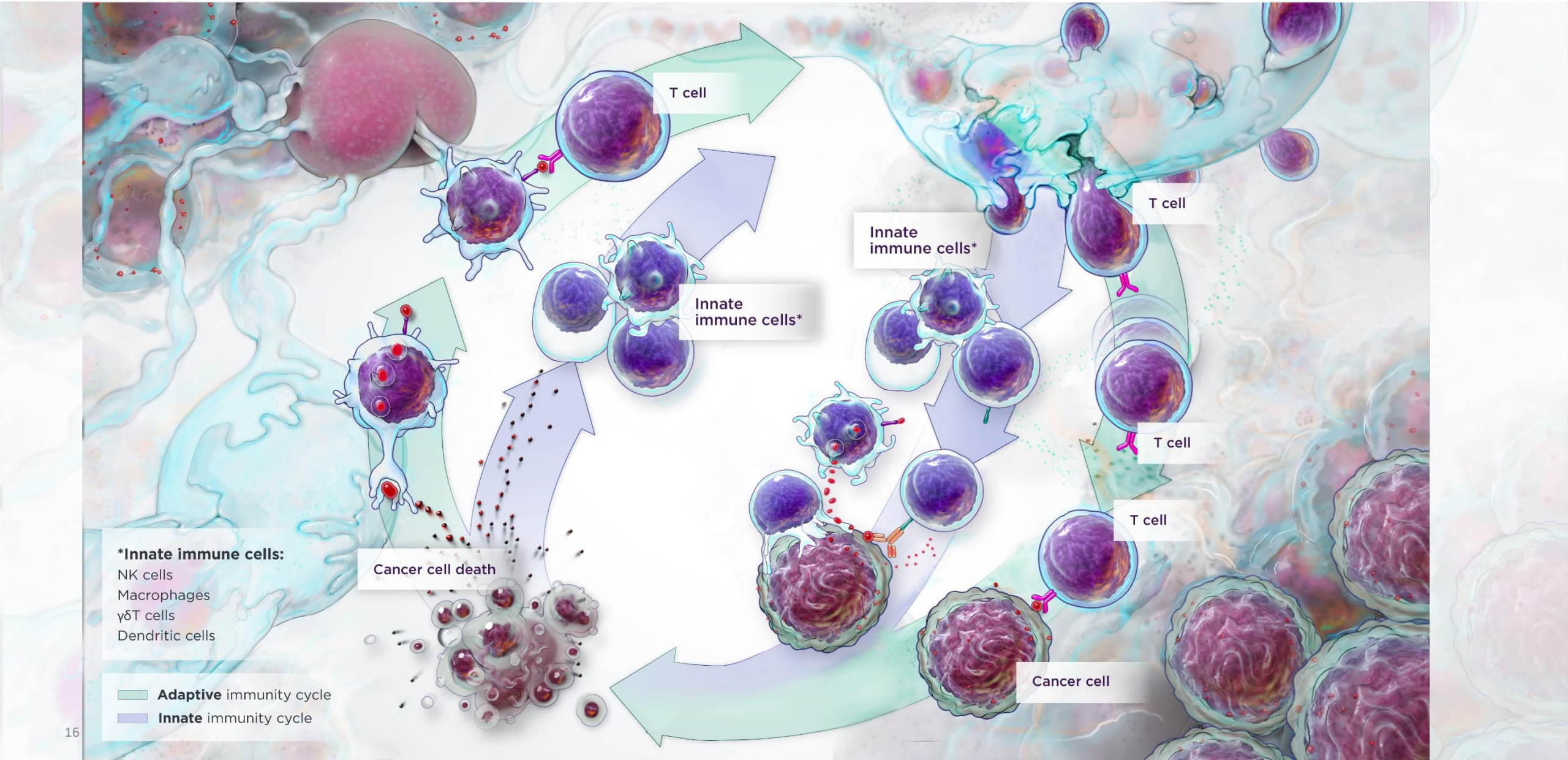


Our Early Pipeline Harnesses the Immune System via Multiple Approaches

Cold-to-Hot

TAK-981
SUMOylation Inhibitor

TAK-676
STING Agonist

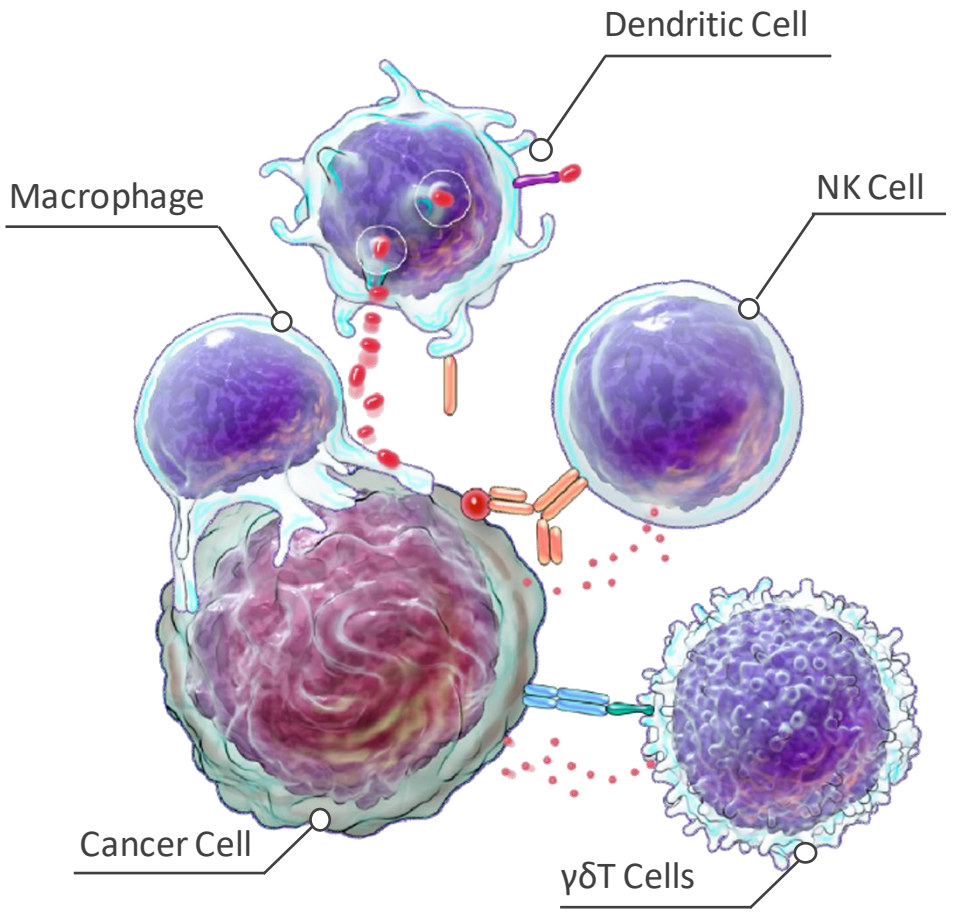
TAK-573
Attenukine ADC

TAK-252
Bifunctional Checkpoint Modulator

Innate immunity enhancers

TAK-605
Armored Oncolytic Virus

Tumor micro-environment disruptors



Redirected Immunity

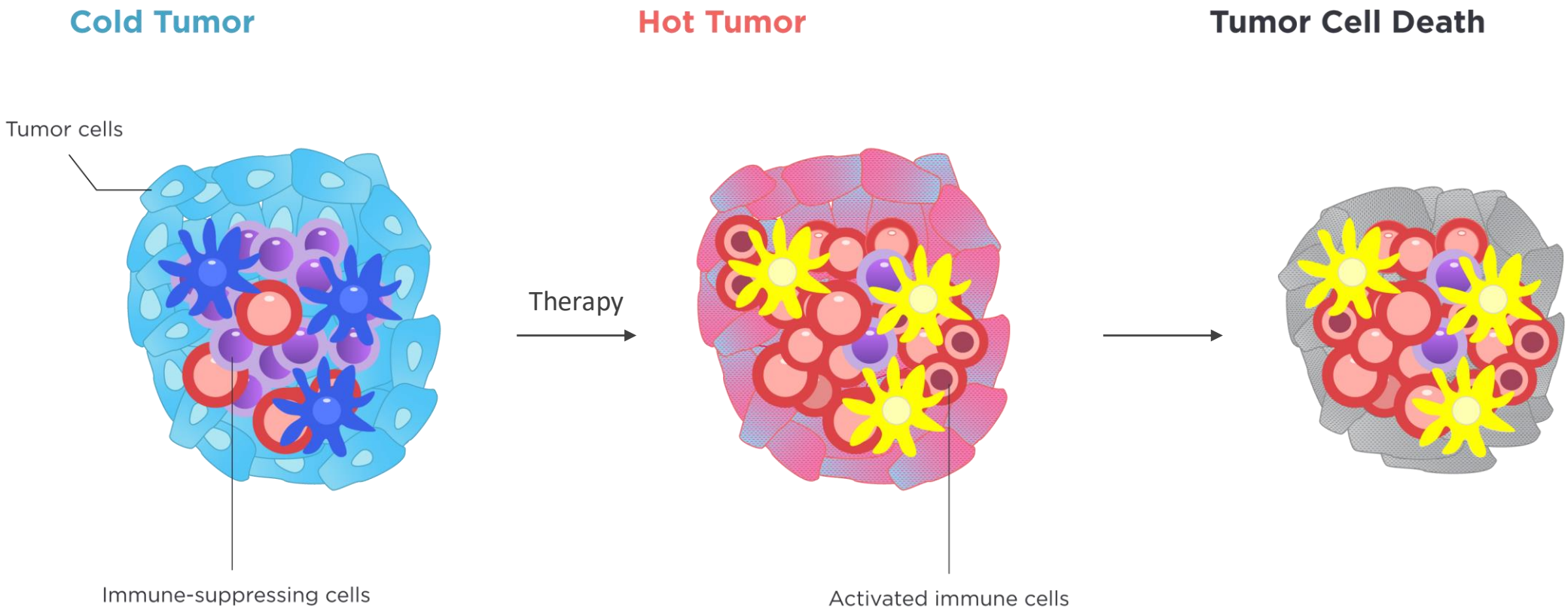
Innate immune cell platforms

- **TAK-007** *NK cells*
- **γδT cells**
- **iPSC derived**

Tumor-selective cell engagers

- **TAK-186** *COBRA platform*
- **Adaptate platform**

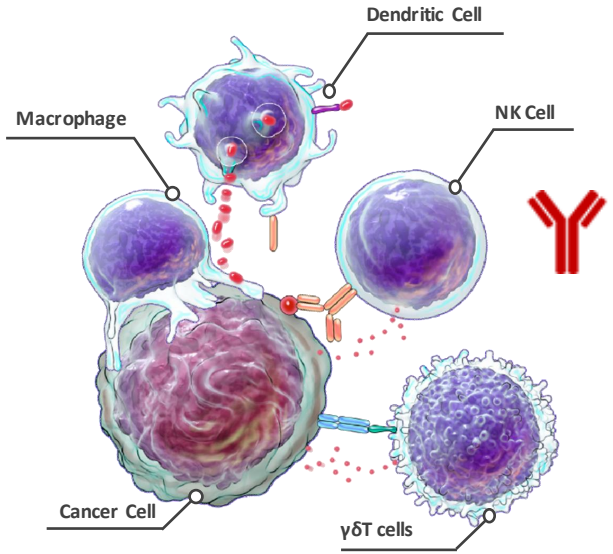
“Cold-to-Hot” Tumor Transitions: Enhancing the Immune System’s Recognition of Cancer to Drive Immune Activation and Tumor Regression



Cold-to-Hot

TAK-981: Novel SUMOylation Inhibitor with the Potential to Drive Immune Responses through Multiple MOAs

Activation of innate response enhances antibody dependent cytotoxicity and synergizes with mAbs

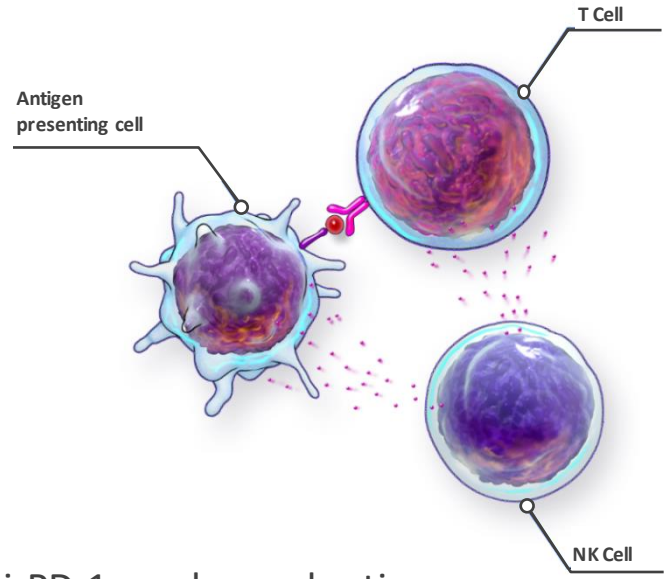


mAb combo evaluation

TAK-981

INCREASED IFN α/β

Innate immune cells are "early responders" to orchestrate the immune response and activate adaptive immune cells



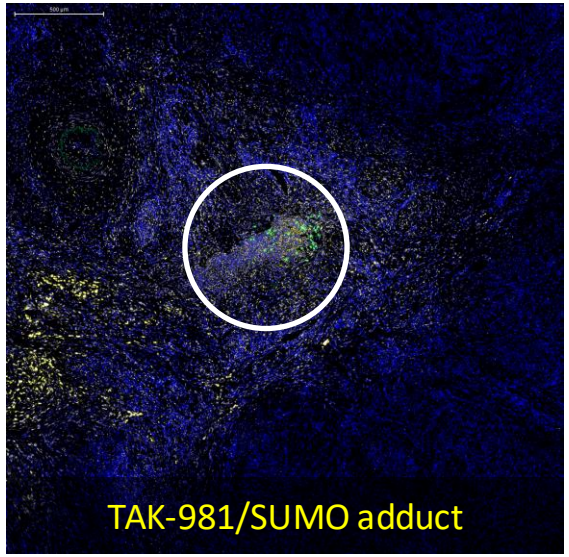
Anti-PD-1 combo evaluation

TAK-981 removes the brakes on endogenous interferon (IFN) signaling to enhance both innate and adaptive anti-tumoral immunity

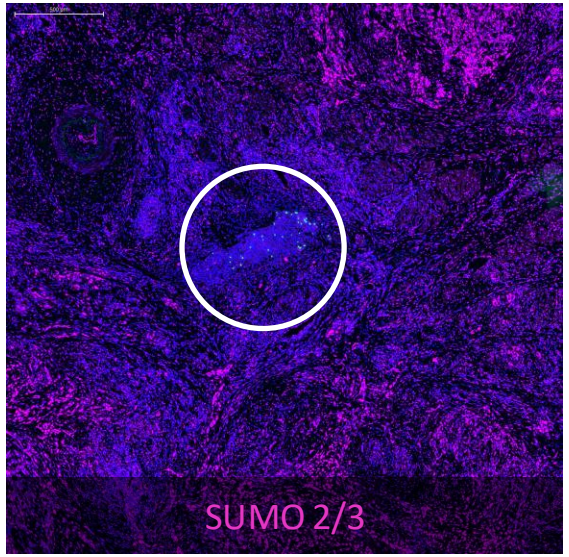
Cold-to-Hot

TAK-981: Evidence of Target Engagement, Interferon Pathway and Immune Cell Activation

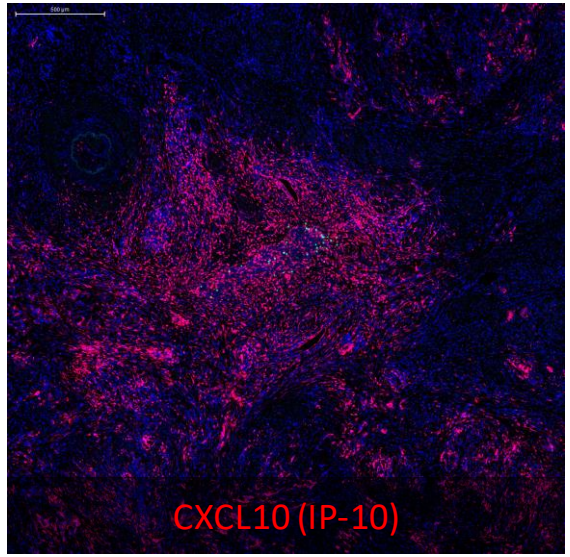
Phase 0 micro-dosing study in progress (Presage translational system)*



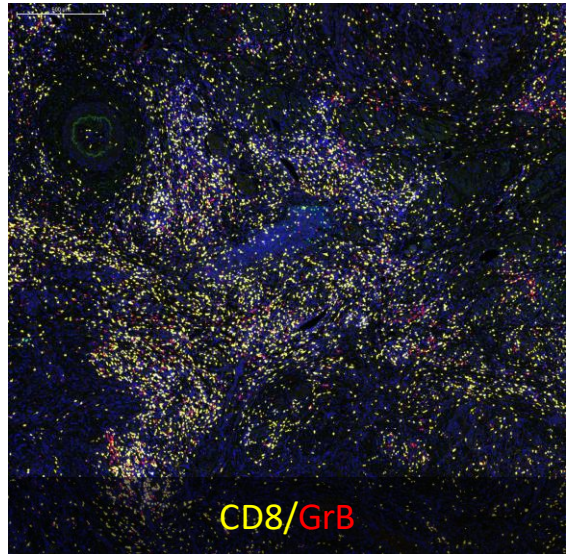
TAK-981
bound to target



SUMO
pathway inhibition



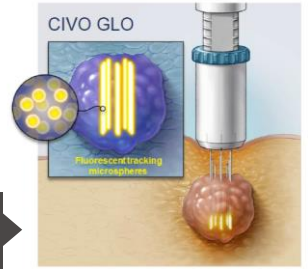
Warming of
tumor



Evidence of
T cell activation

*Images are from head and neck squamous cell carcinoma (SCC) patient

Presage Technology



Cold-to-Hot

TAK-981: Exploring Combination and Single-Agent Approaches

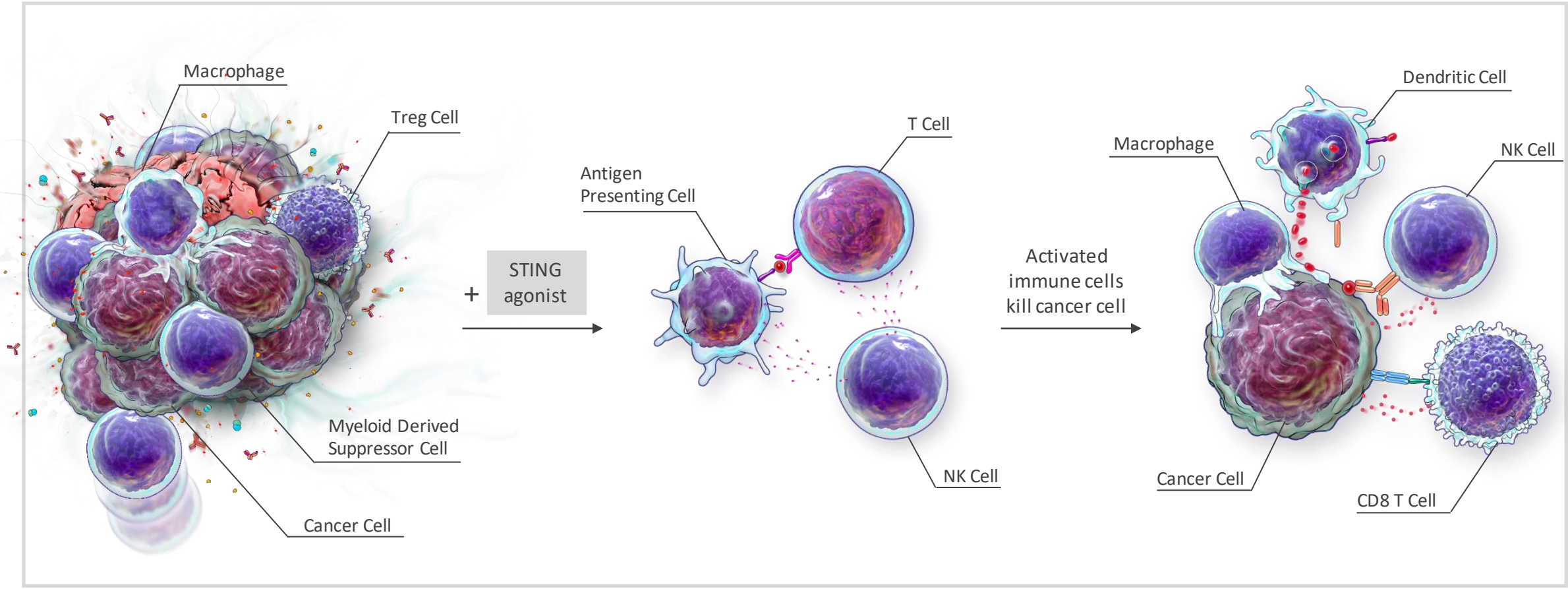
Proof-of-mechanism and early clinical data expected 2H FY21 through FY22

Ongoing Single-Agent Study	**Ph1 First-in-Human (Dose-Escalation):** TAK-981 in advanced or metastatic solid tumors or relapsed/refractory hematologic malignancies*
Ongoing Combination Studies	**Ph1/2:** TAK-981 + rituximab in relapsed/refractory CD20-positive non-Hodgkin lymphoma
	Ph1b/2: TAK-981 + anti-CD38 (daratumumab) in relapsed/refractory multiple myeloma
	Ph1b/2: TAK-981 + PD1 (pembrolizumab) in select advanced or metastatic solid tumors

*Trial-in-progress poster presented at ASCO (Abstract TPS2667)

Cold-to-Hot

STING Agonists: Modulate Key Interferon Pathways With the Potential To Drive a Potent Anti-Tumor Immune Response



STING *(selective agonist of STimulator of INterferon Genes)* activates multiple innate and adaptive immune mechanisms, overcoming immune suppression to propel the cancer-immunity cycle

Cold-to-Hot

STING: Development Programs

Ongoing TAK-676 Studies

Ph1 First-in-Human (Dose-Escalation): TAK-676 alone and in combination with pembrolizumab in advanced or metastatic solid tumors*

Ph1 (Dose-Escalation): TAK-676 plus pembrolizumab following radiation therapy in select solid tumors after progression on checkpoint inhibitors

Phase 0 (Non-interventional; Presage): TAK-676 in combination with chemotherapy via intra-tumoral micro-dosing in head and neck tumors

STING ADC in Development

TAK-500 is a targeted antibody drug conjugate (ADC) STING agonist with a **payload of TAK-676**. Expected to enter the clinic in FY21.

*Trial-in-progress poster presented at ASCO (Abstract TPS2670)

Cold-to-Hot

Our Early Pipeline Harnesses the Immune System via Multiple Approaches

Cold-to-Hot

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SUMOylation Inhibitor

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Innate immunity enhancers

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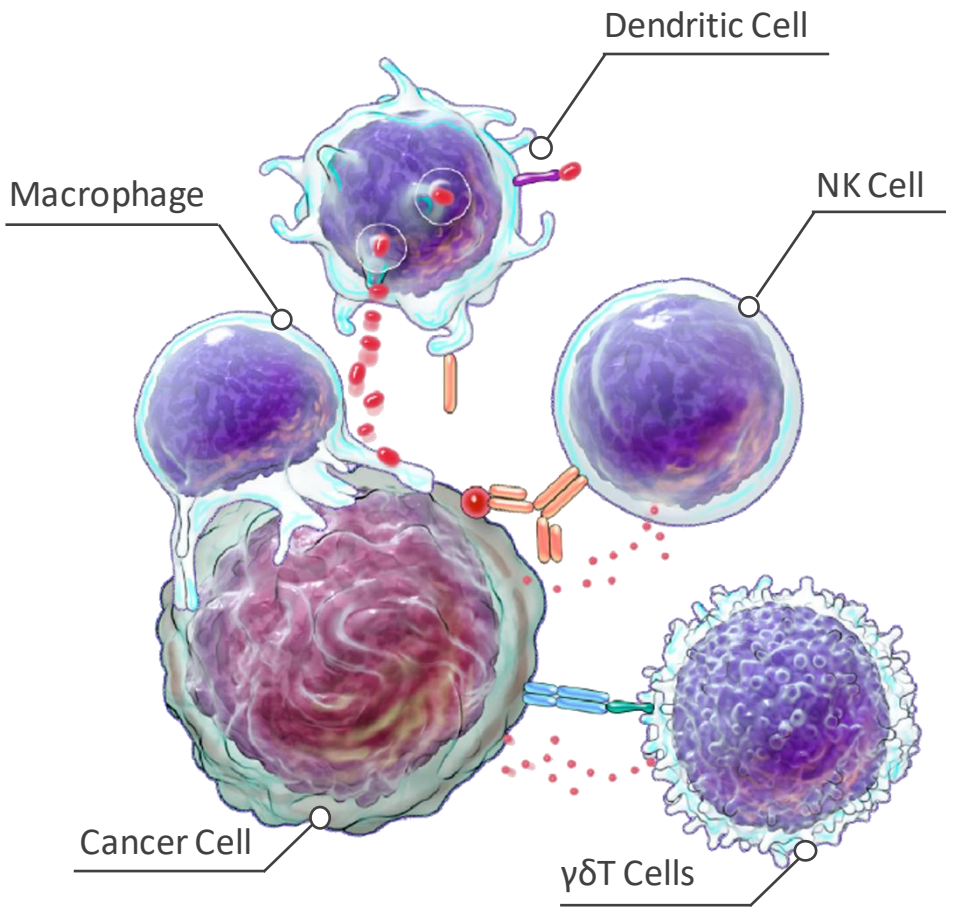
Armored Oncolytic Virus

Tumor micro-environment disruptors



Redirected Immunity

Innate immune cell platforms

TAK-007
NK cells

γδT cells

iPSC derived

Tumor-selective cell engagers

TAK-186
COBRA platform

Adaptate platform

Multiple Innovative Allogeneic Cell Therapy Platforms Leverage the Power of Innate Immune Biology

Innate immune cell platforms

CAR NKs

Potent tumor killing cells with potential to orchestrate T cell responses

- NK cells naturally attack tumor cells
- Armoring them with a CAR further enhances their activity against tumor cells

MD Anderson Cancer Center

γδT cells

Potential advantages in addressing solid tumors

- Potent anti-tumor activity that is not antigen-specific (different from traditional T cells)
- Recognizes a broad spectrum of antigens on tumor cells

GAMMADELTA THERAPEUTICS

iPSC derived

Universal innate immune cell-based iPSC platforms

- Scalable, programmable biology with vial-to-vial comparability

T-CiRA

Redirected Immunity

Allogeneic Cell Therapies Have the Potential to Improve Patient Access to Transformative Cancer Treatments

MEET PATIENTS WHERE THEY ARE

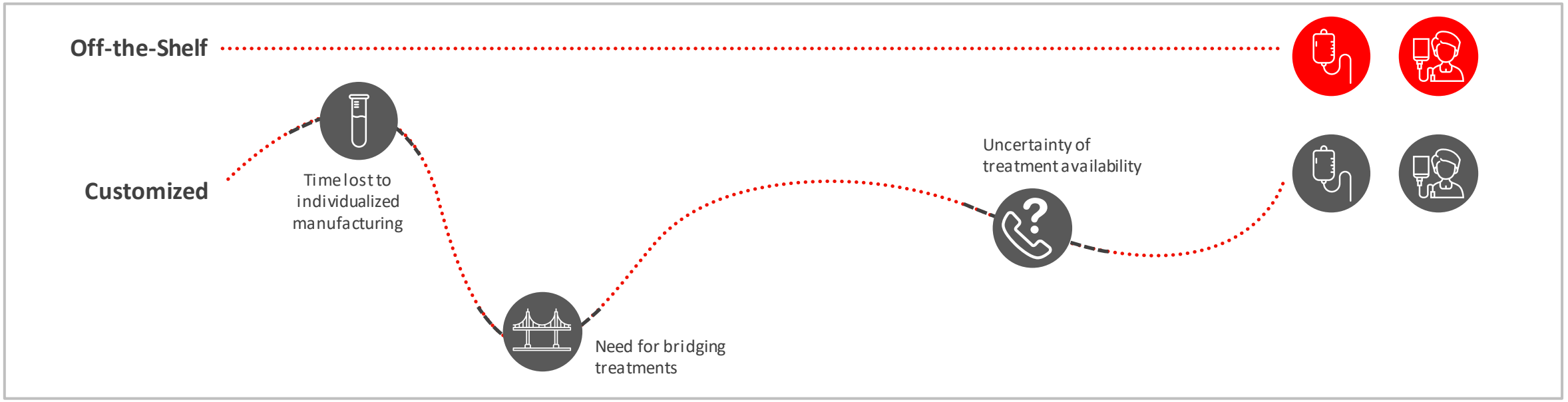
Delivered beyond large hospitals or academic medical centers – availability at community oncology centers can reduce travel burden on patients

OFF-THE-SHELF

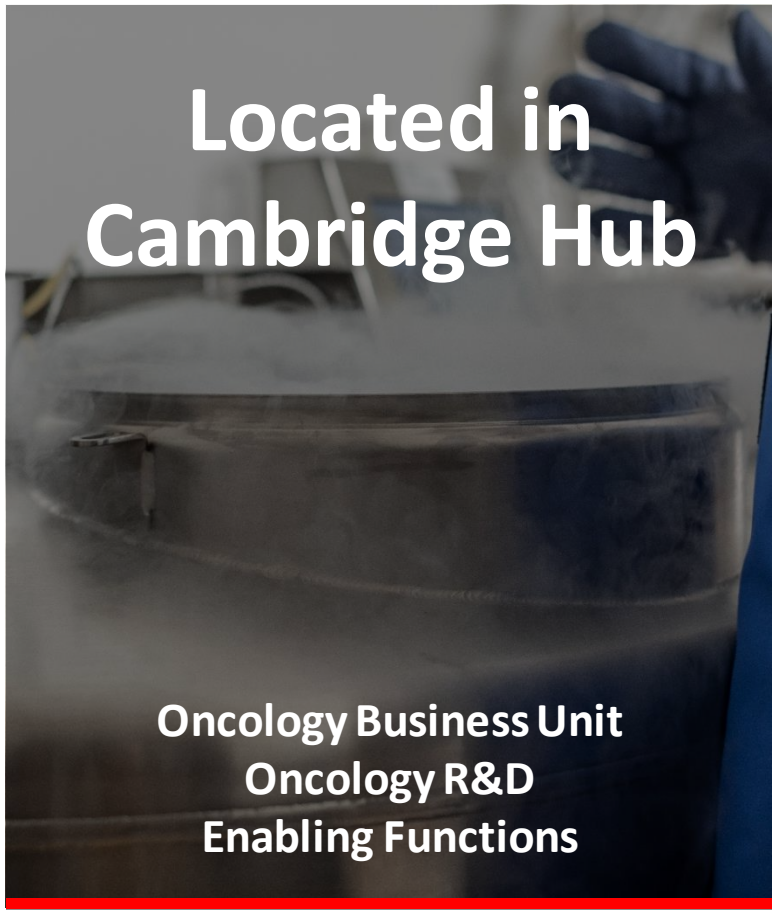
Can be made readily available for patients, reducing wait time for therapy and increasing convenience

ELIMINATE BRIDGING TREATMENTS

No wait period between patient cell harvest and administration



End-to-End Cell Therapy Development Capabilities with State-of-the-Art Manufacturing Facilities



TAK-007: Off-the-Shelf, Cryopreserved IL-15 Armored Cord Blood-Derived CD19-Targeted CAR NK Therapy

Ongoing TAK-007 Development

Building on work of MD Anderson Cancer Center team
Cryo-formulation development and process refinement

Submission of Takeda-sponsored IND on track: To facilitate start of Phase 2 study to evaluate Takeda formulation of TAK-007

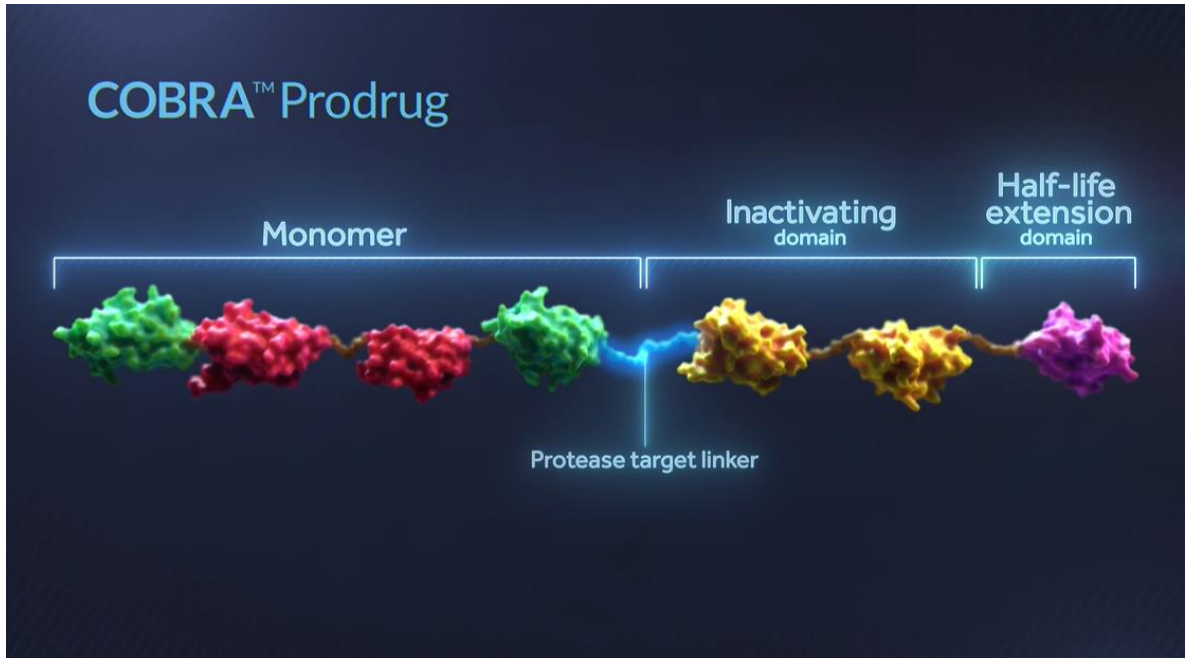
Upcoming for TAK-007

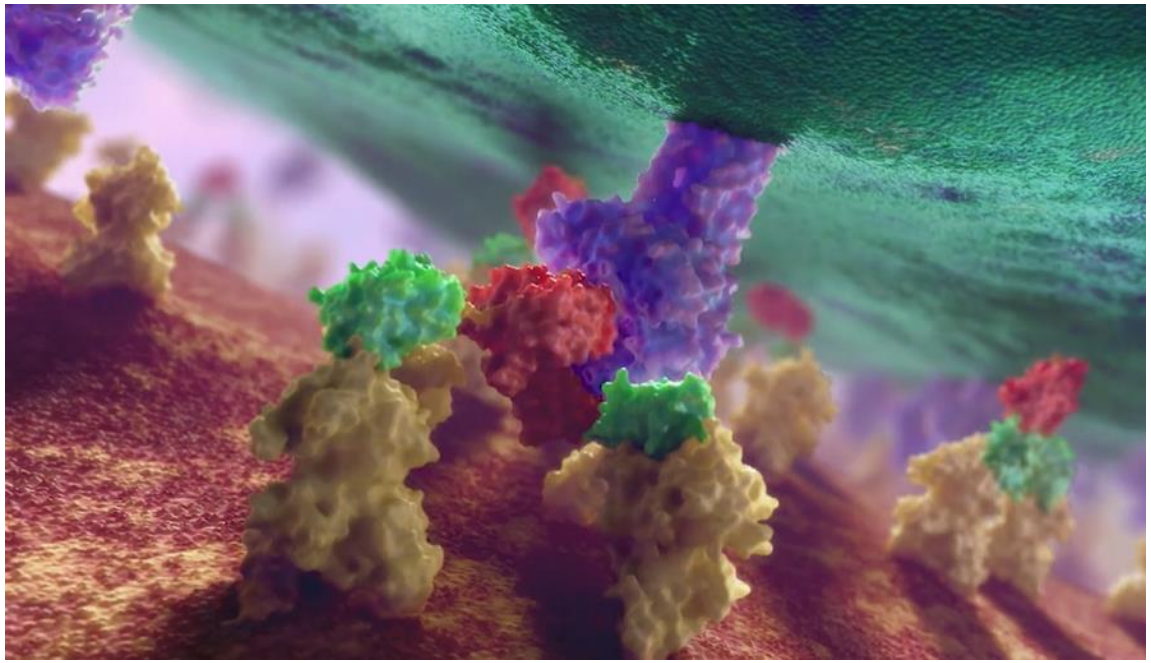
Ph2 Part 1: Establishing safety/dosing of TAK-007 (Takeda formulation) – target start 1H FY21

Ph2 Part 2: Registration-enabling – target start FY22

Redirected Immunity

COBRA Platform: Differentiated T Cell Engagers Specifically Designed To Allow Targeting of Solid Tumors





COBRA molecules are half-life extended T cell engagers designed to be conditionally activated in solid tumor microenvironments

Redirected Immunity

COBRA: Development Programs

Ongoing TAK-186 Clinical Study Targeting EGFR	**Ph1/2 (Dose-Escalation):** TAK-186 in EGFR-expressing, unresectable, locally advanced or metastatic solid tumors
Additional COBRA Molecules in Development	**TAK-280:** Targets B7H3-expressing cancers (solid tumor); expected to enter clinic in 2H FY21
	Additional programs are in preclinical development; moving rapidly on candidate selection

Redirected Immunity

Takeda Oncology Key Takeaways

Strong Growth for In-Market Therapies

FY20 launch successes drive rapid, consistent growth

Near-Term Pipeline Milestones

Multiple clinical readouts, regulatory decisions in the next 12-18 months

Broad Potential with Early Pipeline

Harnessing the innate immune system through multiple platforms


Inspiration from **Patients.**
Innovation from **Everywhere.**
Takeda
ONCOLOGY

Questions & Answers

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Head, Oncology Therapeutic Area Unit

Andrew Plump, MD, PhD
President, Research & Development

Dion Warren
Vice President, Head of U.S. Oncology Business Unit

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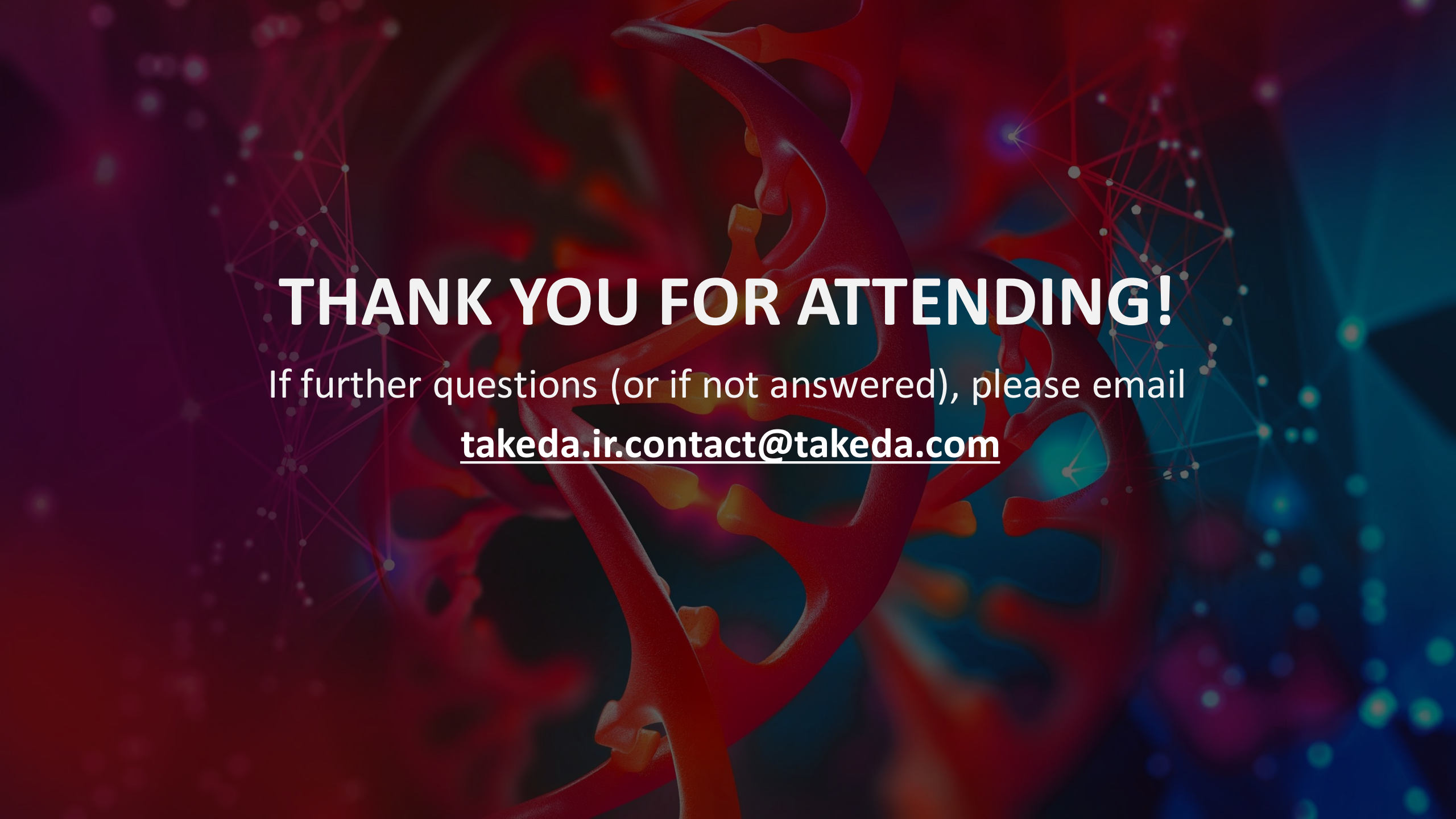
Vice President, Head of Clinical Science

Upcoming Investor Events

ANNUAL GENERAL MEETING OF SHAREHOLDERS	**JUNE 29, 2021 | TUESDAY**
FINANCE STRATEGY DAY	**JULY 12, 2021 ET | JULY 13, 2021 JST**
FY2021 Q1 EARNINGS CALL	**JULY 30, 2021 | FRIDAY**
FY2021 Q2 EARNINGS CALL	**OCTOBER 28, 2021 | THURSDAY**



THANK YOU FOR ATTENDING!

If further questions (or if not answered), please email

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