# Research & Development Day

**September 14, 2023**

Bristol Myers Squibb™

# Forward Looking Statements and Non-GAAP Financial Information

This presentation contains statements about Bristol-Myers Squibb Company's (the "Company") future financial results, plans, business development strategy, anticipated clinical trials, results and regulatory approvals that constitute forward-looking statements for purposes of the safe harbor provisions under the Private Securities Litigation Reform Act of 1995. All statements that are not statements of historical facts are, or may be deemed to be, forward-looking statements. Actual results may differ materially from those expressed in, or implied by, these statements as a result of various factors, including, but not limited to, (i) new laws and regulations, (ii) our ability to obtain, protect, and maintain market exclusivity rights and enforce patents and other intellectual property rights, (iii) our ability to achieve expected clinical, regulatory and contractual milestones on expected timelines or at all, (iv) difficulties or delays in the development and commercialization of new products, (v) difficulties or delays in our clinical trials and the manufacturing, distribution and sale of our products, (vi) adverse outcomes in legal or regulatory proceedings, (vii) risks relating to acquisitions, divestitures, alliances, joint ventures and other portfolio actions and (viii) political and financial instability, including changes in general economic conditions. These and other important factors are discussed in the Company's most recent annual report on Form 10-K and reports on Forms 10-Q and 8-K. These documents are available on the U.S. Securities and Exchange Commission's website, on the Company's website or from Bristol-Myers Squibb Investor Relations. No forward-looking statements can be guaranteed.

In addition, any forward-looking statements and clinical data included herein are presented only as of the date hereof. Except as otherwise required by applicable law, the Company undertakes no obligation to publicly update any of the provided information, whether as a result of new information, future events, changed circumstances or otherwise.

# Agenda for today

**Chris Boerner, PhD, EVP – Chief Operating Officer**
Strategic Overview

**Robert Plenge, MD, PhD - EVP, Chief Research Officer, Head of Research**
Building on our strengths to deliver industry-leading R&D

***BREAK (10 min)***

**Samit Hirawat, MD - EVP, Chief Medical Officer, Drug Development**
Accelerating Our Deep Development Pipeline (Immunology, Hematology, & Oncology)

***BREAK (10 min)***

**Samit Hirawat, MD - EVP, Chief Medical Officer, Drug Development**
Accelerating Our Deep Development Pipeline (Cardiovascular & Neuroscience)

**Chris Boerner, PhD, EVP – Chief Operating Officer**
Closing

**BMS Leadership**
Q&A

**Conclusion, lunch reception**

# Strategic Overview

## Chris Boerner, PhD

*EVP, Chief Operating Officer*

*CEO, effective Nov. 1, 2023*

# Our business has significant opportunities beyond external expectations

## Strong Foundation

- **R&D has delivered: 9** new medicines, numerous milestones
- **Commercial execution is strong:** Key Inline & New Products continue to grow
- **Business momentum is robust:** Strong base business & expanding New Product Portfolio

## 2023-2030 BMY External vs Internal Revenue Drivers

### Consensus Drivers

- **IRA**
- **LOE Exposure**

### Drivers of Internal Conviction

- **In-line and recently launched products** with significant commercial opportunities
- **12 rapidly advancing new medicines** in or near registrational development
- **R&D productivity and efficiency** enhancements
- Strong financial capacity for **business development**

# Numerous levers to drive long-term growth

- Strong Base Business with unrecognized durability
- Increasingly de-risked New Product Portfolio
- Expanding registrational pipeline from **6** to **12** new assets over next 18 months
- Robust early pipeline with **30+** assets & opportunity to deliver **~10** INDs a year
- Increased R&D productivity
- Strategic optionality from Business Development

# Our goal is to deliver sustainable growth

## *Four Key Enablers*

Evolve R&D for scientific leadership

Strong commercial execution to realize value of our marketed portfolio

Execute strategic capital allocation to further strengthen our growth profile

Foster a high-performance culture and attract & retain industry-leading talent

**We are driven by our mission: Transforming patients' lives through science**

# Focus for today

## *Four Key Enablers*

Evolve R&D for scientific leadership

Strong commercial execution to realize value of our marketed portfolio

Execute strategic capital allocation to further strengthen our growth profile

Foster a high-performance culture and attract & retain industry-leading talent

**We are driven by our mission: Transforming patients' lives through science**

# Evolving BMS R&D: World-class organization with increased focus on productivity & scientific leadership

## Scientific Leadership

- Cardiovascular
- Hematology
- Oncology
- Immunology
- Neuroscience

Established leadership

Re-establishing

## Top-tier productivity

- Increasing Probability of Success
- Increasing INDs
- Reducing Cycle Times

## Capitalize on differentiated platforms

- Targeted Protein Degradation
- Cell Therapy
- Biotherapeutics
- Small Molecules

## Retain & attract the best talent in the industry

- Enabled by a high-performance culture

## Leveraging partnerships and AI/Digital Technologies

# Build depth across our therapeutic areas

| Oncology | Cardiovascular | Hematology | Immunology | Neuroscience |
|---|---|---|---|---|
| Extend IO leadership<br>• SC nivolumab, Opdualag, & next generation assets | Deepen leadership in cardiomyopathies & heart failure | Extend leadership across the Multiple Myeloma treatment paradigm | Establish new standards of care in pulmonology | Build a diverse pipeline across neurodegenerative & neuroinflammation diseases |
| Diversification beyond IO | Expand expertise in thrombotic diseases | Broaden portfolio across leukemias, lymphomas and non-malignant hematologic diseases | Strengthen presence in dermatology, rheumatology, & gastrointestinal disorders<br>Rapidly advance Cell Therapy into immunologic diseases | Advance promising clinical assets in Alzheimer's Disease & ALS |

# Differentiated Platforms: Significantly expand the opportunity in Targeted Protein Degradation & Cell Therapy

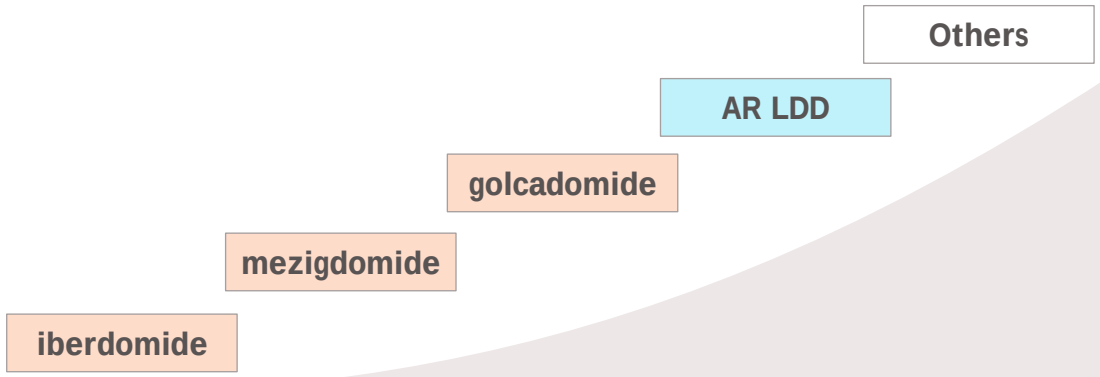
## Opportunity for Targeted Protein Degradation

**Positioned to deliver ~4 INDs annually**

**And expand targets to new therapeutic areas:**

- ☑ Hematology
- ☑ Oncology
- ☐ Immunology
- ☐ Neuroscience

### Waves of agents expected to launch over time:

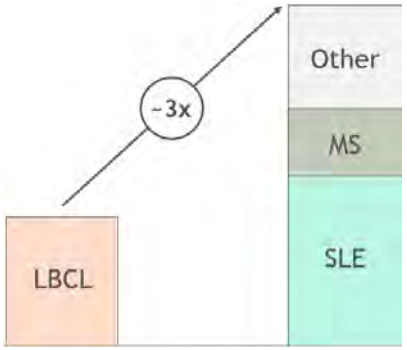



## Building on Our Leadership in Cell Therapy

| Today | | Future | |
|---|---|---|---|
| Abecma (idecabtagene vicleucel) | Breyanzi (lisocabtagene maraleucel) | GPRC5D CAR T | CD19 NEX T |
| *First-in-Class anti-BCMA* | *Best-in-Class anti-CD19* | BCMA x GPRC5D dual binding CAR | Innovative Technologies (e.g., allogeneic) |

### Expansion into Immunology: Starting with CD19 NEX T[1]

- Severe, refractory lupus
- Multiple Sclerosis
- Other diseases with high unmet need

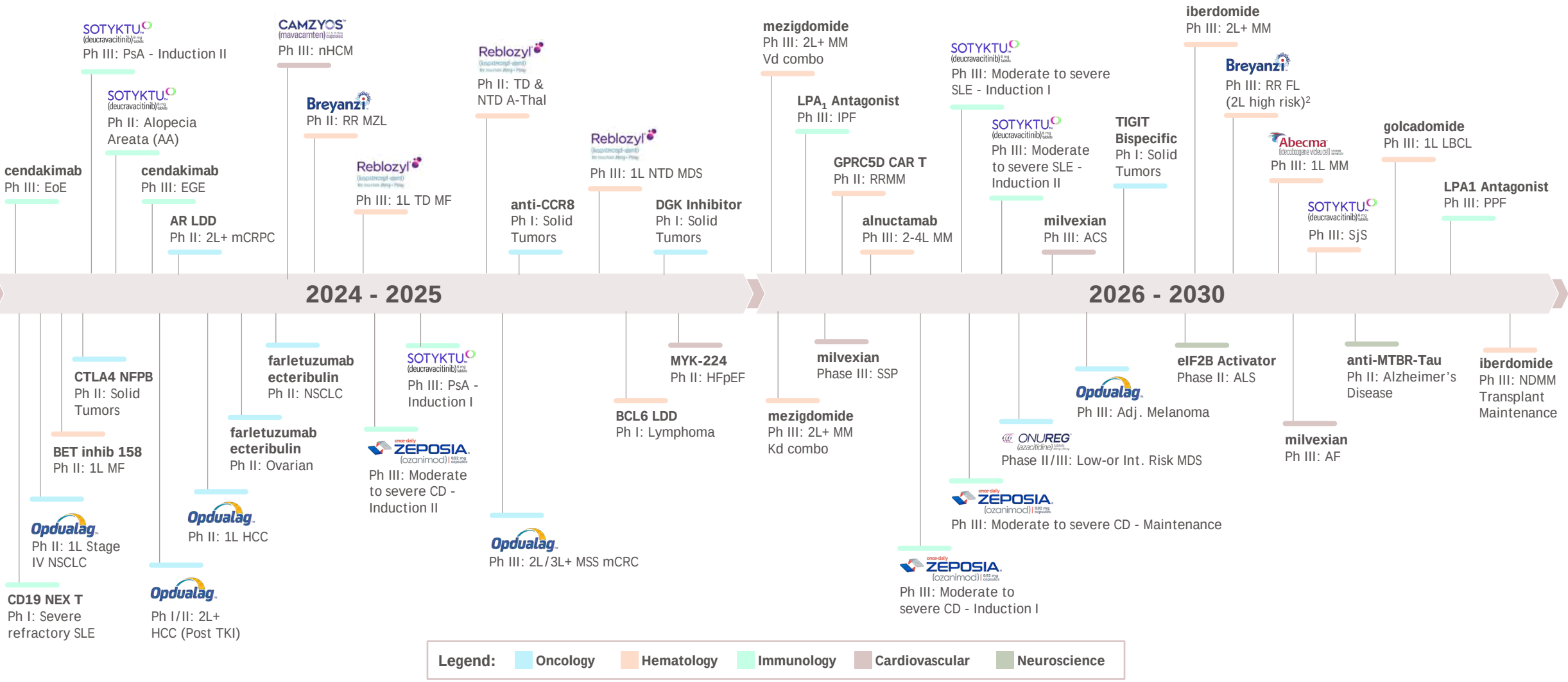



1. 2023 estimates from Decision Resource Group & BMS Internal Analysis; represents U.S. total diagnosed prevalence

# Three R&D productivity objectives to drive long term sustainable growth

| | | |
|---|---|---|
| 1 | **Increase & Sustain INDs** | **~10 INDs** per year |
| 2 | **Increase Probability of Success** | Increase success rate from first-in-human to approval to **~20%** |
| 3 | **Reduce Cycle Times** | Achieve median of **~6.5 years** from first-in-human to approval |

# Entering a data-rich period supporting potentially first-in-class/best-in-class assets with significant commercial potential




1. Japan or Asia study only 2. Confirmatory trial
Note: excludes assets pending IND approval: HbF Inducer, BCMA x GPRC5D, CD19 NEX T in MS, & TYK2i-CNS
Timeline represents data readouts or key data to inform clinical development (timeline not to scale)

# What you will hear today

We are focused on transforming our approach to R&D with an emphasis on:

- Strengthening scientific leadership in our TAs and platforms
- Significantly improving the efficiency and productivity of our R&D engine
- Building a culture of innovation that attracts and retains the best talent

The evolved R&D engine will enhance the data-rich period in the second half of the decade

A number of these assets have the potential to significantly exceed external expectations based on evolving science

Successful execution of our R&D strategy is a core component to enable BMS achieve its strategic goal to achieve sustainable growth

# Building on our strengths to deliver industry-leading R&D

## Robert Plenge, MD, PhD

*EVP, Chief Research Officer, Head of Research*

# An integrated approach to research & development

**Oncology** | **Hematology** | **Immunology** | **Cardiovascular** | **Neuroscience**

**Thematic Research Centers (TRCs)**

Biology and translational teams

**Modalities and platforms**

Small molecules, biotherapeutics, cell therapy, targeted protein degradation, nucleic acid therapies

**Research functions**

Computational biology, clinical pharmacology, DMPK, toxicology, translational medicine


Early and Late Clinical Development

Global Development Operations

Global Regulatory Sciences

Global Biometrics & Data Sciences

Worldwide Patient Safety

Portfolio & Strategic Operations

Strategy & Capabilities

**Deliver new medicines with transformational potential with an increased probability of success in development**

**Maximize innovation and productivity to deliver more medicines to patients faster**

# Three key Research principles to improve R&D productivity

## Causal human biology

Application of human data (e.g., genetics, longitudinal profiling of patient samples) for rigorous target validation in drug discovery

## Matching modality to mechanism

Invention of high-quality therapeutics that match a modality to a molecular mechanism of action

## Path to clinical proof-of-concept

Targeted patient selection (e.g., biomarkers) and clear translational endpoints for improved clinical success

**Our ambition is to increase the number of INDs with transformational potential and increased probability of success across all stages of clinical development**

# Investments in “causal human biology to proof-of-concept” research framework ensure we are industry-leading

## Causal human biology

- Human genetics (germline and somatic)
- Translational insights from patients in the real world and BMS clinical trials

TEMPUS · FINNGEN · biobank uk · Open Targets · BROAD INSTITUTE

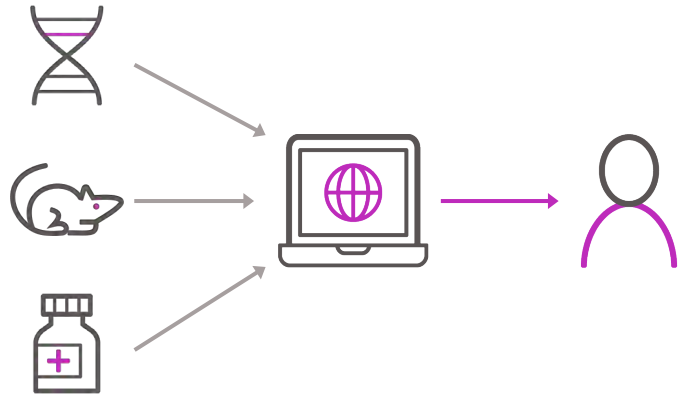
## Matching modality to mechanism

- Diverse modalities, including:
  - Small molecules
  - Biotherapeutics
  - Nucleic acid therapies
  - Targeted Protein Degradation
  - Cell Therapy
- AI-assisted molecule invention

insitro · Exscientia · SCHRÖDINGER · BigHat BIOSCIENCES

## Path to clinical proof-of-concept

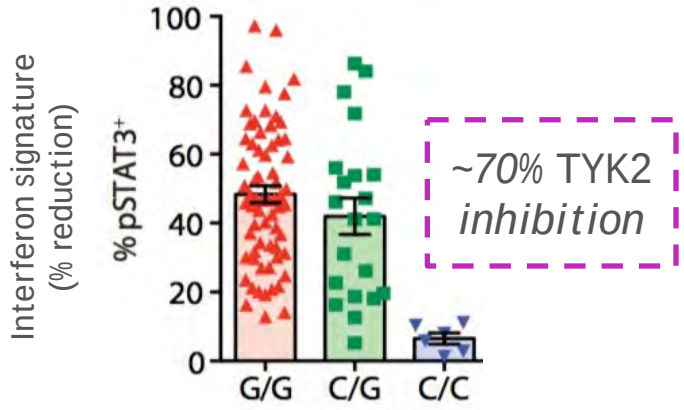
Technologies and diagnostics to enable mechanistic models for dose, schedule, and patient populations



# **Research framework is effective:** *TYK2* genetics and SOTYKTU in immunologic diseases

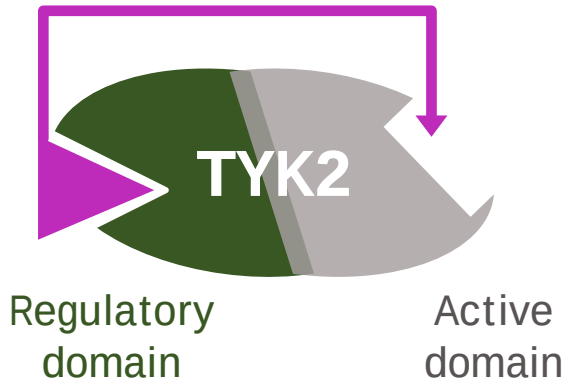
## Causal human biology

### Human genetics (*P1104A*): implicates TYK2 in multiple immunologic diseases



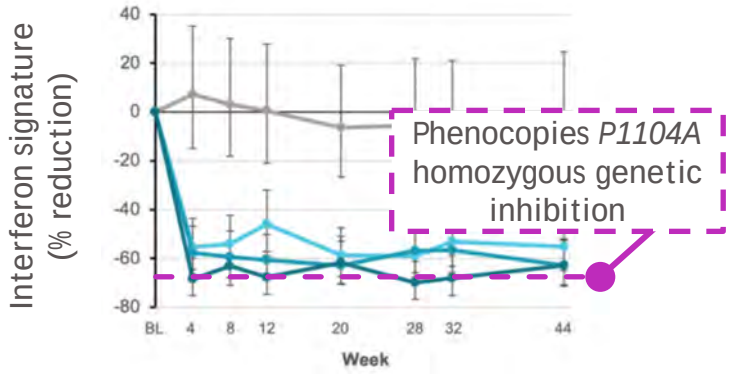

## Matching modality to mechanism

### Allosteric inhibitor: A highly selective small-molecule drug




## Path to clinical proof-of-concept

### Initially psoriasis: now systemic lupus erythematosus (SLE)




**We now <u>consistently</u> apply this Research framework to all our programs to deliver transformational medicines with an increased probability of success in development**



Sci Transl Med 2016 Nov; 8(363): 363ra149
PLoS One 2015 April; 10(4): e0122271
Arthritis Rheumatol. 2023 Feb; 75(2): 242–252.
Clin Transl Sci. 2023 Jan; 16(1): 151–164

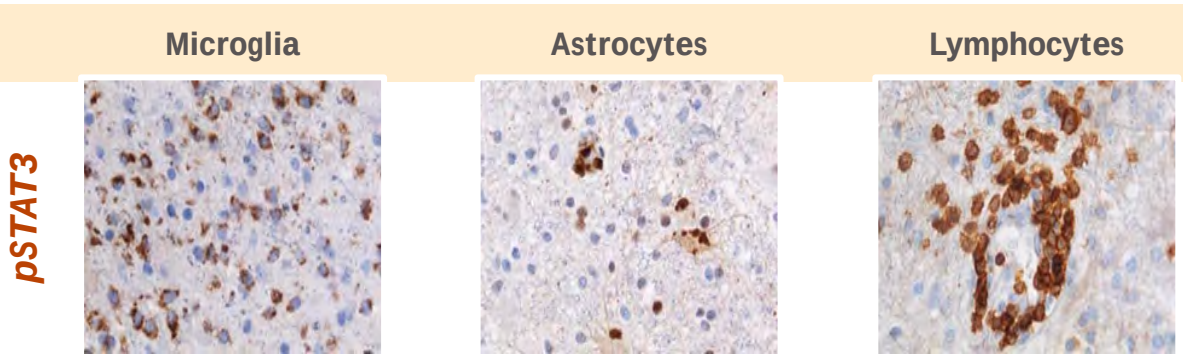
# **Research framework provides confidence in new programs:** novel CNS penetrant TYK2 inhibitor for Multiple Sclerosis (MS)

## Transformational potential

First-in-class, oral, CNS penetrant TYK2 inhibitor with direct anti-inflammatory effects in the CNS to treat neuroinflammatory neurodegenerative disorders.

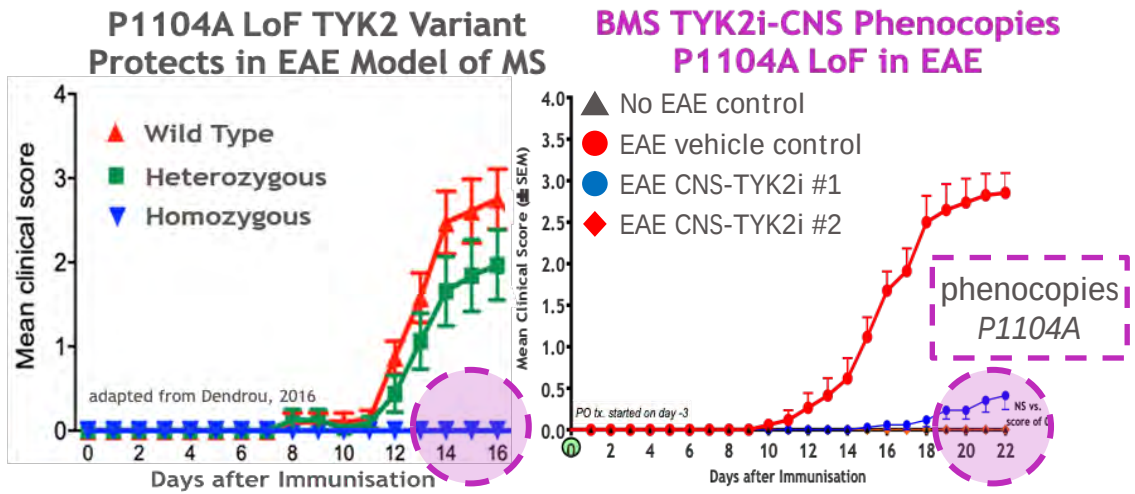
## Causal human biology

Mechanism is supported by human genetics (*P1104A* loss-of-function variant), human pathology, clinical fluid biomarkers.




pSTAT3, an indicator of TYK2 activation, is increased in key inflammatory cells of the brain in multiple sclerosis[#].

## Matching modality to mechanism




## Path to clinical proof-of-concept

Achieve CNS drug exposure to inhibit CNS TYK2 by **at least 70%** consistent with pre-clinical data in the EAE mouse model (above) and quantitative systems pharmacology modeling of SOTYKTU in psoriasis and SLE.

Sci Transl Med 2016 Nov; 8(363): 363ra149



# Lu et al, J Neuropathol Exp Neurol 72:1135 (2013);
Dendrou et al:Sci Transl Med 2016 Nov 2;8(363):363ra149. doi: 10.1126/scitranslmed.aag1974

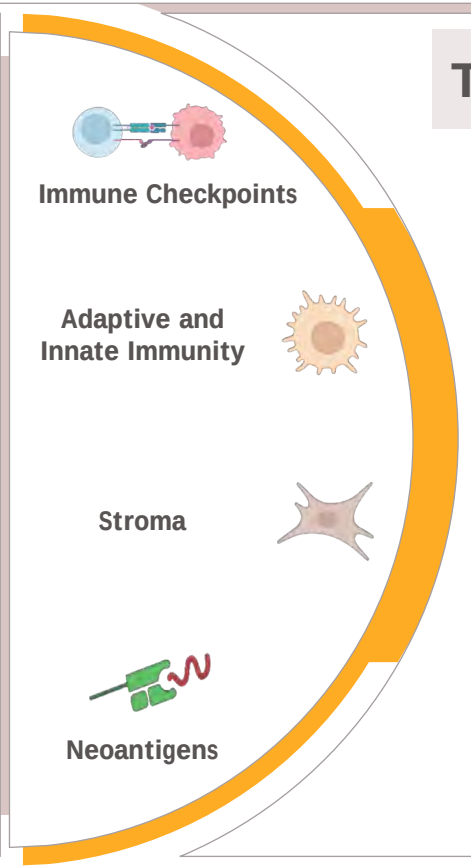
# Research framework applied to Oncology builds on our scientific depth in immuno-oncology

**Strategy**: Build a portfolio of foundational assets to address key tumor intrinsic and tumor extrinsic mechanisms, where combinations will be critical for durable responses with transformational potential.

We have deep expertise in tumor extrinsic biology

Only company with three approved T cell checkpoint inhibitors (CPIs)

Insights from translational datasets to guide the next-generation of transformational medicines




## Tumor Extrinsic

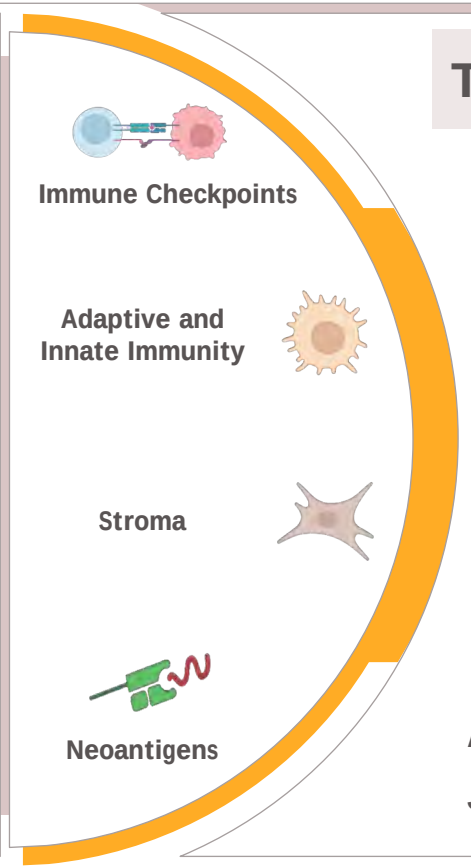
# Research framework applied to Oncology builds on our scientific depth in immuno-oncology

**Strategy**: Build a portfolio of foundational assets to address key tumor intrinsic and tumor extrinsic mechanisms, where combinations will be critical for durable responses with transformational potential.

We have deep expertise in tumor extrinsic biology

Only company with three approved T cell checkpoint inhibitors (CPIs)

Insights from translational datasets to guide the next-generation of transformational medicines




## Tumor Extrinsic

### Next-gen T cell CPIs

Anti-CTLA4 next-gen, anti-TIGIT bi-specific, dual DGKα/ζ inhibitor

### Other immune cells

Tregs – anti-CCR8

Myeloid – anti-ILT4

NK cells - anti-NKG2A

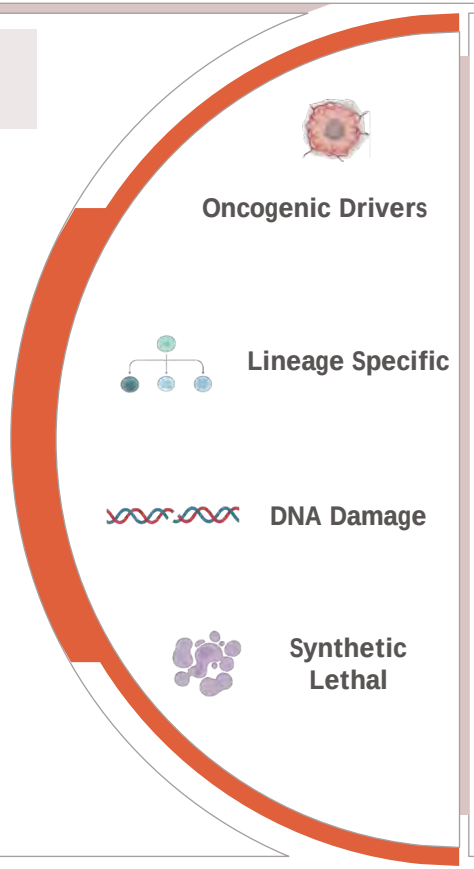
### Aberrant Stromal Biology

JNK inhibitor, TGFB inhibitor

# Research framework applied to Oncology builds on our scientific depth in tumor intrinsic mechanisms

**Strategy**: Build a portfolio of foundational assets to address key tumor intrinsic and tumor extrinsic mechanisms, where combinations will be critical for durable responses with transformational potential.

## Tumor Intrinsic




We have emerging expertise in tumor intrinsic biology

Clinical and pre-clinical programs targeted to specific tumor types and patient subsets

Insights from translational datasets demonstrate the relationship between tumor intrinsic and tumor extrinsic to guide rational combinations

# Research framework applied to Oncology builds on our scientific depth in tumor intrinsic mechanisms

**Strategy**: Build a portfolio of foundational assets to address key tumor intrinsic and tumor extrinsic mechanisms, where combinations will be critical for durable responses with transformational potential.

## Tumor Intrinsic

### Oncogenic Mechanisms

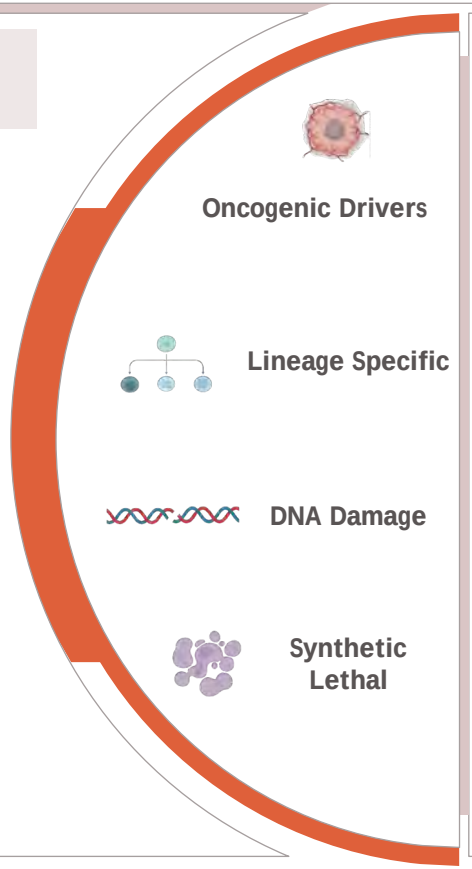
repotrectinib in ROS1+ lung cancer, RAS signaling (SHP2 inhibitor)

### Lineage-specific targets

AR LDD in prostate cancer, anti-ganglioside fucosyl-GM1 in SCLC

### Cancer cell vulnerabilities

Context specific dependencies (e.g., DNA damage), synthetic lethal interactions




We have emerging expertise in tumor intrinsic biology

Emerging clinical and pre-clinical programs targeted to specific tumor types and patient subsets

Insights from translational datasets demonstrate the relationship between tumor intrinsic and tumor extrinsic to guide rational combinations

# Research framework plus tumor intrinsic and extrinsic strategy will deliver productivity in Oncology

**Causal human biology** | **Matching modality to mechanism** | **Path to clinical proof-of-concept**

## Tumor Intrinsic

### Oncogenic Mechanisms

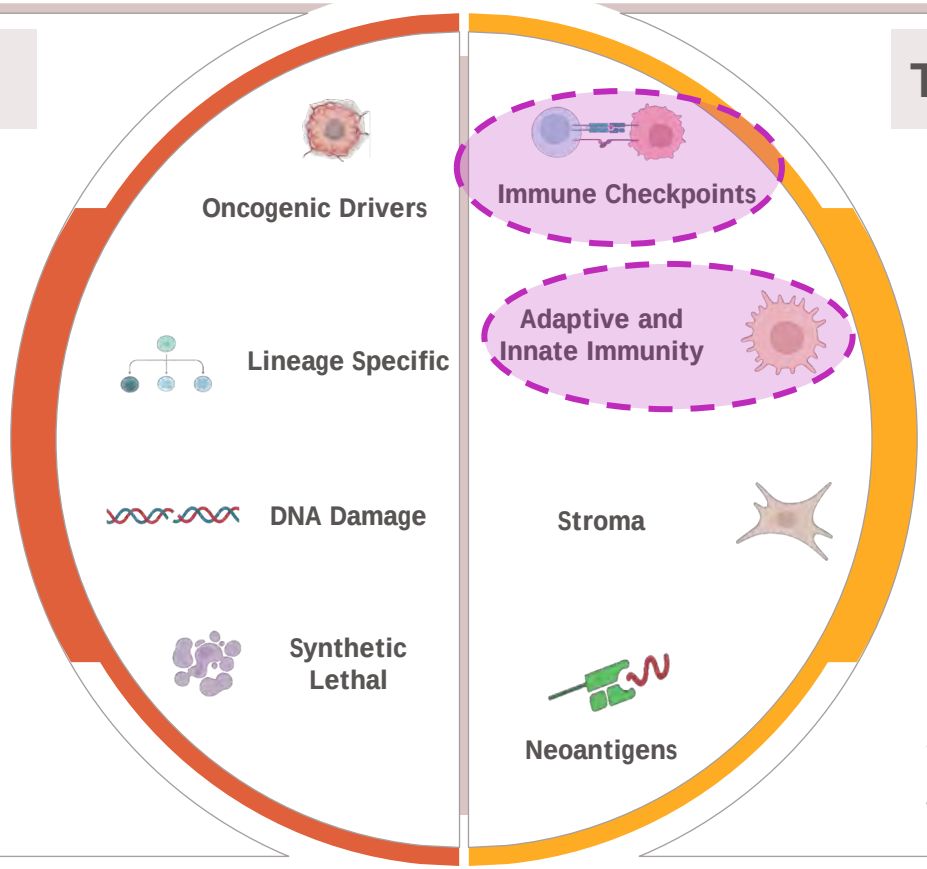
repotrectinib in ROS1+ lung cancer, RAS signaling (SHP2 inhibitor)

### Lineage-specific targets

AR LDD in prostate cancer, anti-ganglioside fucosyl-GM1 in SCLC

### Cancer cell vulnerabilities

Context specific dependencies (e.g., DNA damage), synthetic lethal interactions




## Tumor Extrinsic

### Next-gen T cell CPIs

Anti-CTLA4 next-gen, anti-TIGIT bi-specific, dual DGK$\alpha/\zeta$ inhibitor

### Other immune cells

Tregs – Anti-CCR8

Myeloid – Anti-ILT4

NK cells - Anti-NKG2A

### Aberrant Stromal Biology

JNK inhibitor, TGFB inhibitor

# **Research framework in action:** anti-CCR8 antibody depletes T regulatory cells (Tregs) with combination potential

## Transformational potential

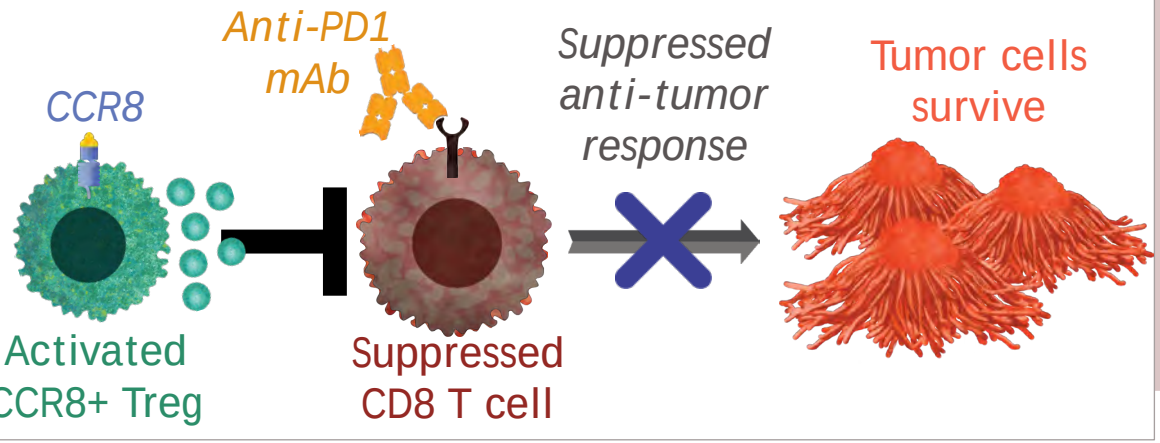
First-in-class, Treg-depleting monoclonal antibody (mAb) with broad combo potential across multiple tumor types.

## Matching modality to mechanism

BMS-986340 is an anti-CCR8 IgG1 biologic with enhanced non-fucosylated (NF) Fc that binds CCR8 and potently depletes T regs while sparing effector CD8 T cells.

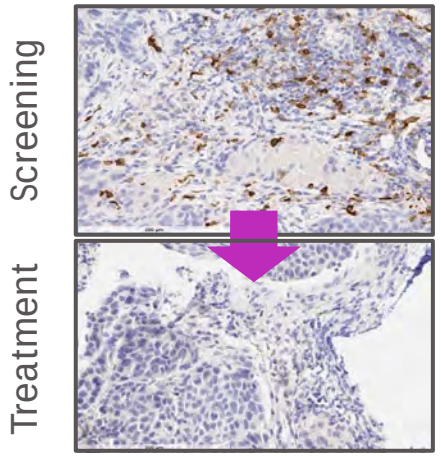
## Causal human biology

Clinical trial translational data demonstrate CCR8+ regulatory T cells (T regs) are a major barrier to effective immune response to anti-PD1 therapy in multiple cancer types.

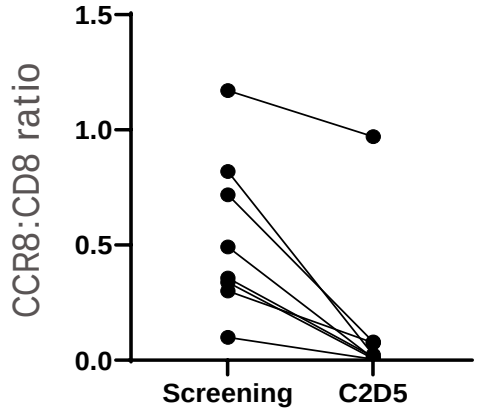



## Path to clinical proof-of-concept

Depletion of CCR8+ Tregs in the tumor after 2 cycles




Reduced ratio CCR8 Treg to CD8+ Teff in the tumor



# **Research framework in action:** anti-CCR8 antibody depletes T regulatory cells (Tregs) with combination potential

## Transformational potential

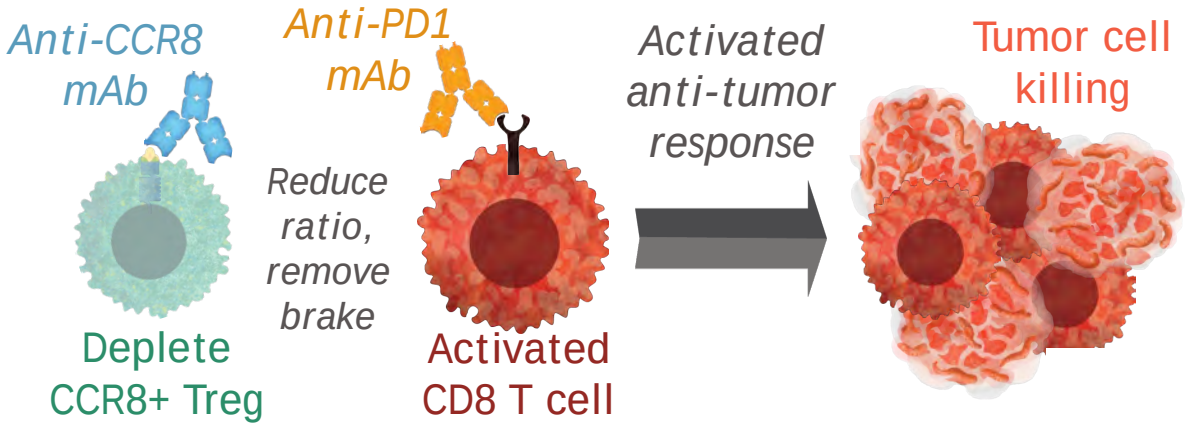
First-in-class, Treg-depleting monoclonal antibody (mAb) with broad combo potential across multiple tumor types.

## Matching modality to mechanism

BMS-986340 is an anti-CCR8 IgG1 biologic with enhanced non-fucosylated (NF) Fc that binds CCR8 and potently depletes T regs while sparing effector CD8 T cells.

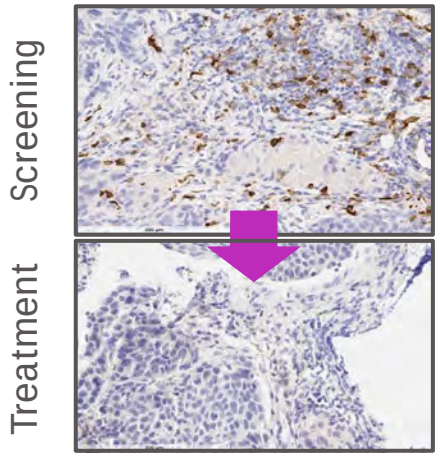
## Causal human biology

Clinical trial translational data demonstrate CCR8+ regulatory T cells (T regs) are a major barrier to effective immune response to anti-PD1 therapy in multiple cancer types. **Hypothesis:**

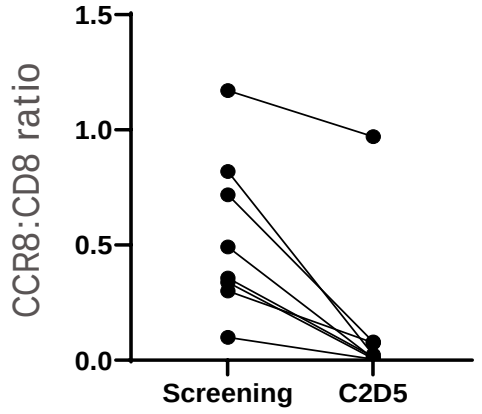



## Path to clinical proof-of-concept

Depletion of CCR8+ Tregs in the tumor after 2 cycles



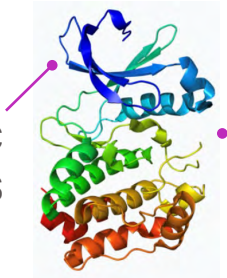

Reduced ratio CCR8 Treg to CD8+ Teff in the tumor



# **Matching modality to mechanism:** Leveraging expertise across multiple modalities

## Small molecule chemistry

Allosteric inhibitors



Active site inhibitors

AI-assisted screening

## Biotherapeutics

Probody® Therapeutic

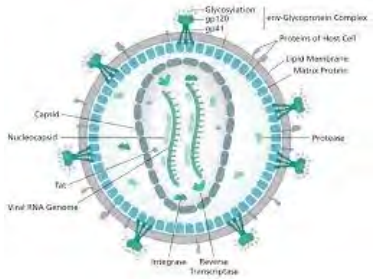
Immune cell engagers

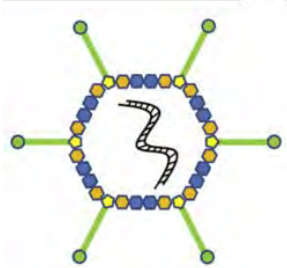
Bi-specifics

ADCs

## Nucleic acid therapies

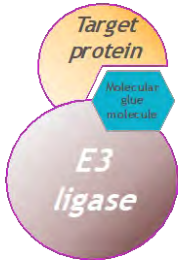
Lentivirus and AAV gene therapy



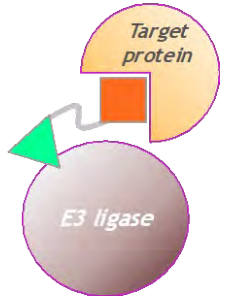
## Targeted Protein Degradation

**Molecular glue**



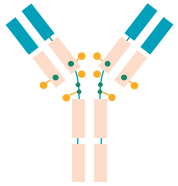

CELMoD

**Hetero-bifunctional**




LDD

**ADC degrader**

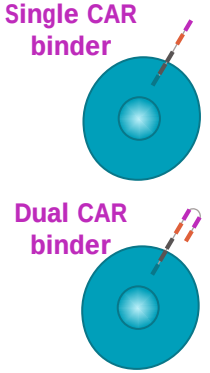


- Cysteine residue
- Drug-Linker

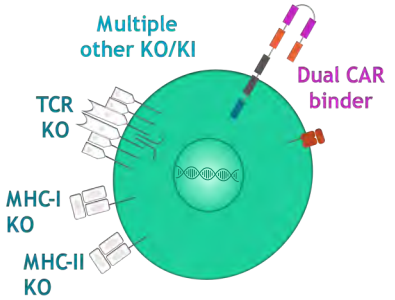
CELMoD ADC

## Cell Therapy

**Autologous**




**Next-generation**




***Allogeneic, iPSC-derived***

Established | Emerging | Discuss today

# Targeted Protein Degradation offers the promise of novel targets and clinical differentiation for existing targets

## Expanded universe of targets

*(e.g., scaffolding proteins, transcription factors)*

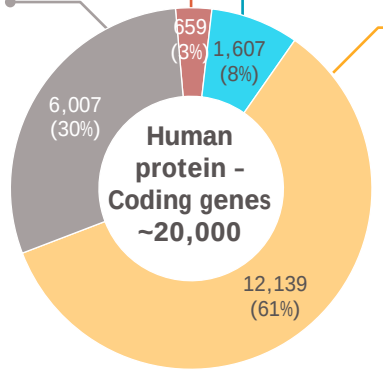
**Drugged:** Target with approved drugs (3%)

**Druggable:** No approved drugs, but bind small molecules with high potency (8%)

**"Dark Genome":** No known disease association (30%)

**Disease-relevant:** No known potent binders, but implicated in disease (61%)

*Small molecule enzyme inhibitor*



# Targeted Protein Degradation offers the promise of novel targets and clinical differentiation for existing targets

## Expanded universe of targets

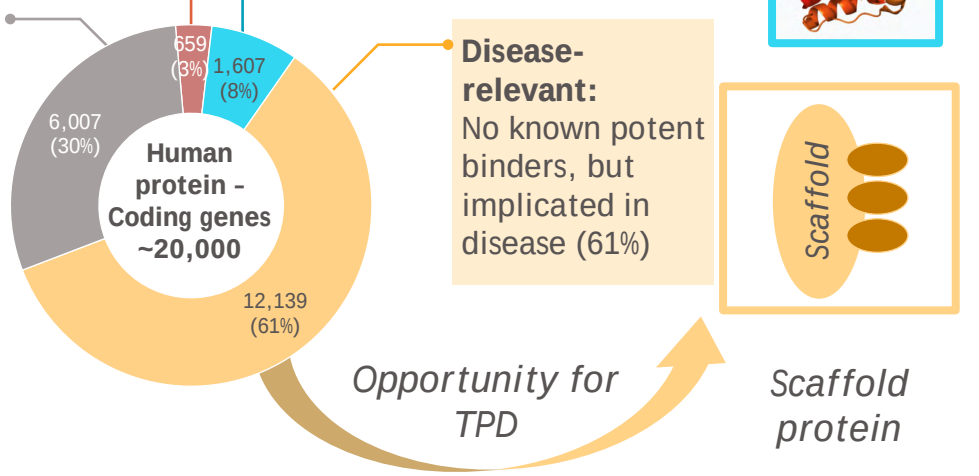
*(e.g., scaffolding proteins, transcription factors)*

**Drugged:** Target with approved drugs (3%)

**Druggable:** No approved drugs, but bind small molecules with high potency (8%)

**"Dark Genome":** No known disease association (30%)

**Disease-relevant:** No known potent binders, but implicated in disease (61%)

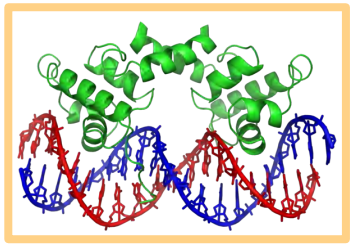



*Opportunity for TPD*

*Small molecule enzyme inhibitor*




*Scaffold protein*



*Transcription factor*

# Targeted Protein Degradation offers the promise of novel targets and clinical differentiation for existing targets

## Expanded universe of targets

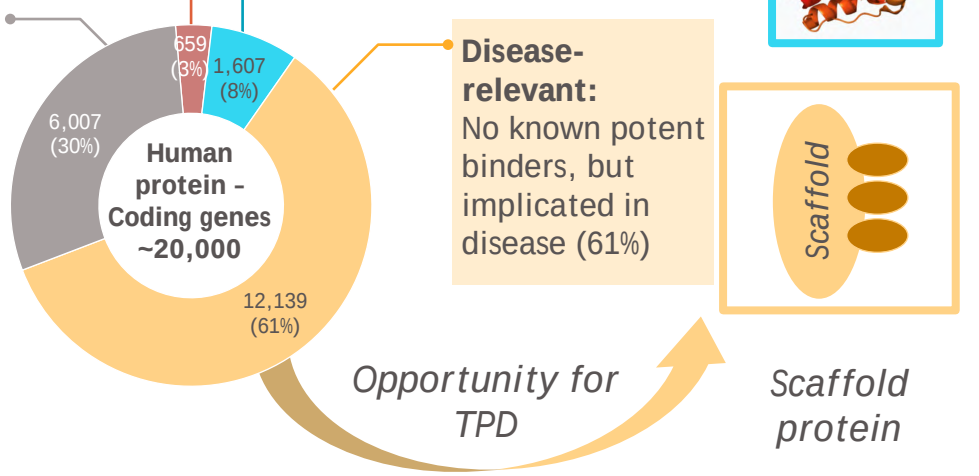
*(e.g., scaffolding proteins, transcription factors)*

**Drugged:** Target with approved drugs (3%)

**Druggable:** No approved drugs, but bind small molecules with high potency (8%)

**"Dark Genome":** No known disease association (30%)

**Disease-relevant:** No known potent binders, but implicated in disease (61%)

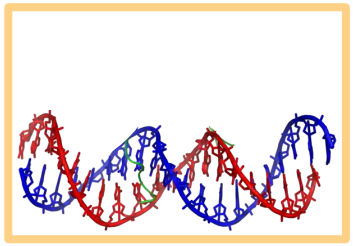



*Opportunity for TPD*

*Small molecule enzyme inhibitor*




*Scaffold protein*

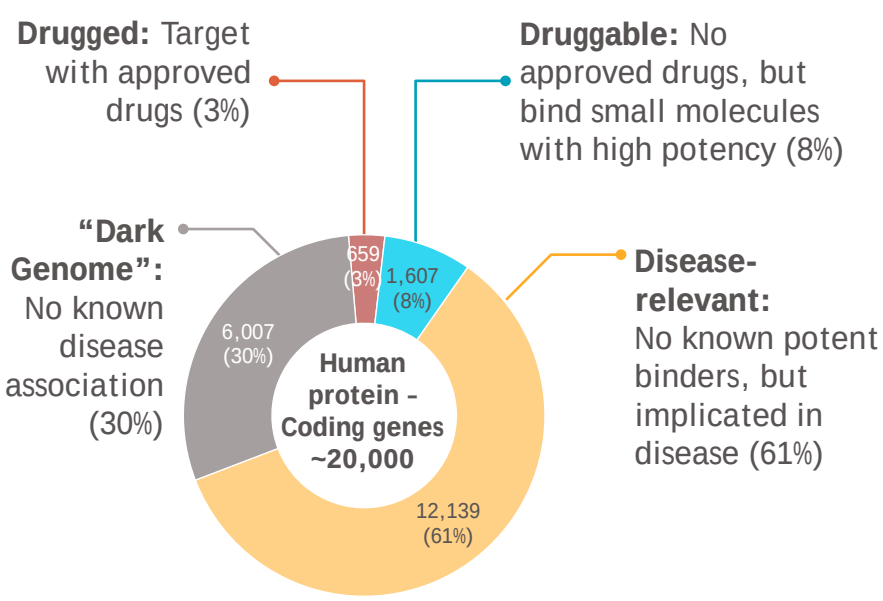


*Transcription factor*

# Targeted Protein Degradation offers the promise of novel targets and clinical differentiation for existing targets

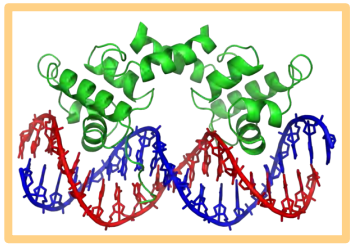
## Expanded universe of targets

*(e.g., scaffolding proteins, transcription factors)*




*Small molecule enzyme inhibitor*

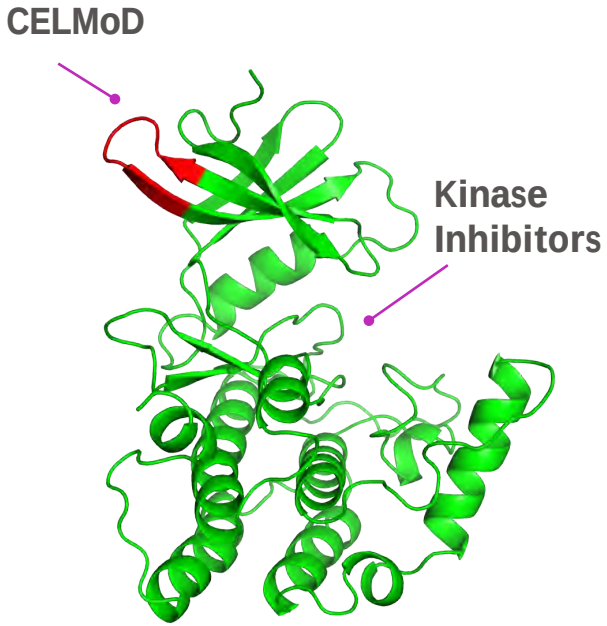

*Scaffold protein*



*Transcription factor*

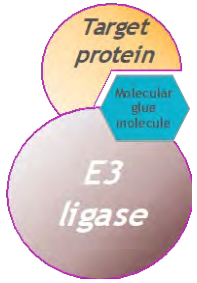
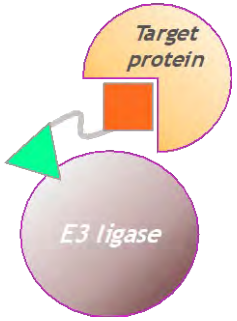
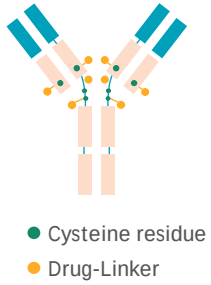
## Potentially superior efficacy

*(e.g., overcome resistance, higher selectivity)*



# Our industry leading position in protein degradation is driven by portfolio breadth and depth of expertise

## Industry-leading capabilities

| Molecular glue | Hetero-bifunctional | ADC degrader |
|---|---|---|
|  |  |  |
| CELMoD | LDD | CELMoD ADC |



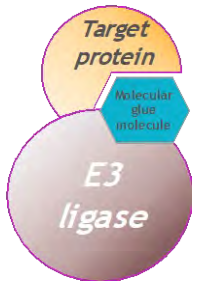
Berkeley
A-ALPHA BIO
evotec
SGC
SyntheX
AMPHISTA THERAPEUTICS

# Our industry leading position in protein degradation is driven by portfolio breadth and depth of expertise

Discuss today

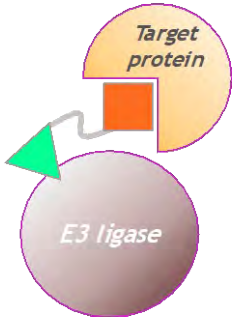
## Industry-leading capabilities

**Molecular glue**



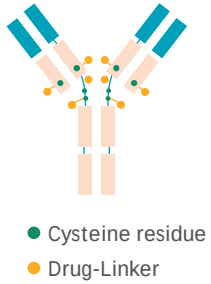

CELMoD

**Hetero-bifunctional**




LDD

**ADC degrader**




CELMoD ADC

Berkeley UNIVERSITY OF CALIFORNIA

A-ALPHA BIO

evotec

SGC

SyntheX

AMPHISTA THERAPEUTICS

## Industry-leading pipeline

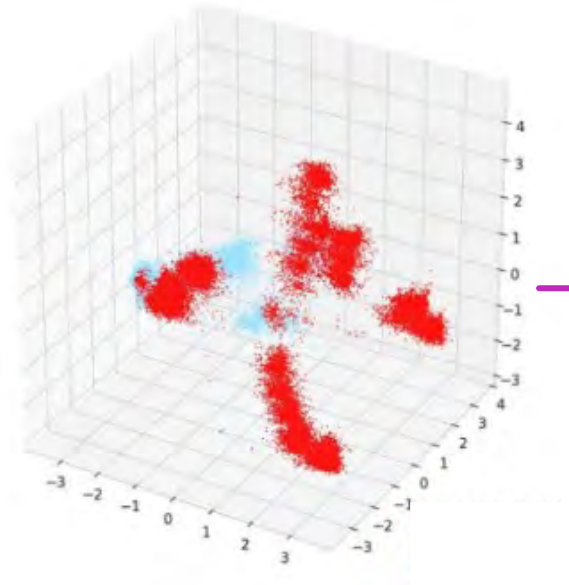
| | | |
|---|---|---|
| **Full Development** | **iberdomide:** Multiple Myeloma | **mezigdomide:** Multiple Myeloma |
| | **golcadomide:** Lymphoma | |
| **Early Development** | **CK1α:** Acute Myeloid Leukemia | **AR LDD:** Prostate |
| | **BCL6 LDD:** Lymphoma | **Helios:** Solid Tumors |
| **IND-enabling studies** | **HbF CELMoD:** Sickle Cell Disease | **LDD:** Prostate |
| | CELMoD Solid Tumors | **LDD:** Autoimmune |

**>15 pre-clinical programs across multiple therapeutic areas**

Potential to efficiently deliver ~4 INDs annually and expand beyond Heme/Onc targets (Immunology, CV, Neuroscience)

# The swift expansion of our CELMoD library has enabled key scientific insights and an increased number of IND candidates

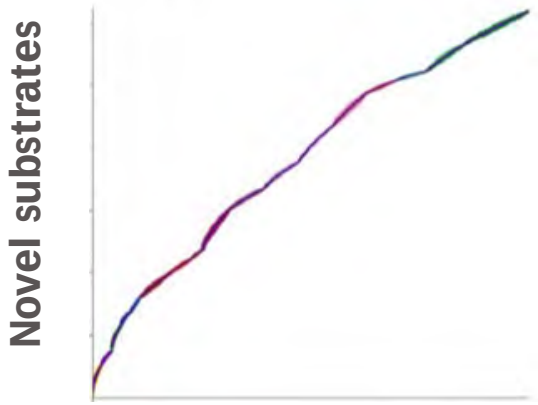
**Diversify chemical library**

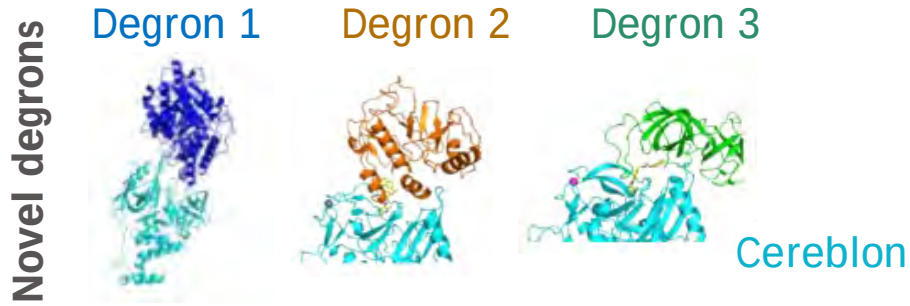


CELMoD library 2019

CELMoD library 2023

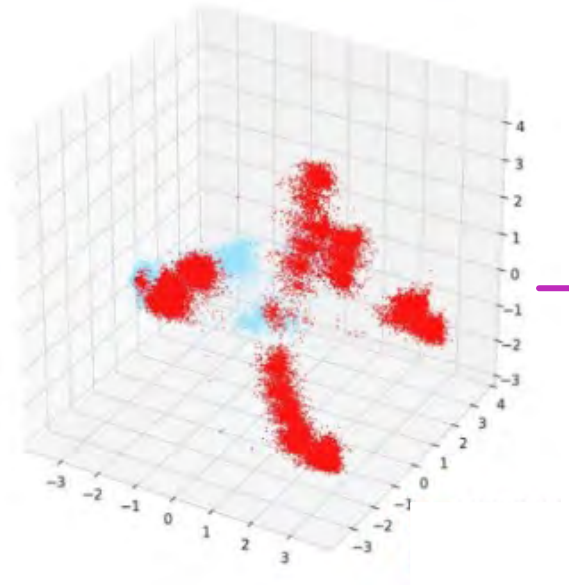
Expanding CELMoD library identifies **novel substrates** and **novel degrons**



# The swift expansion of our CELMoD library has enabled key scientific insights and an increased number of IND candidates

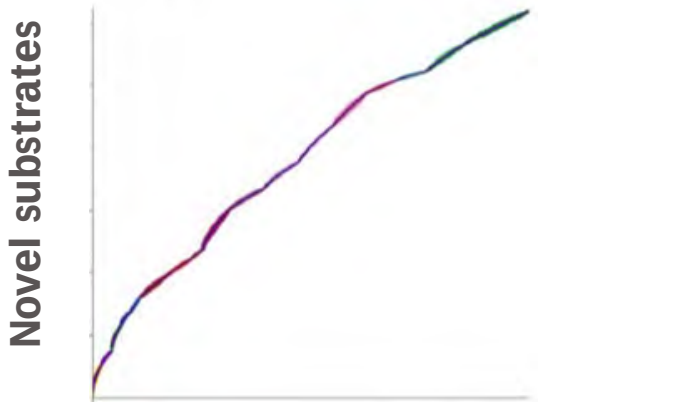
**Diversify chemical library**

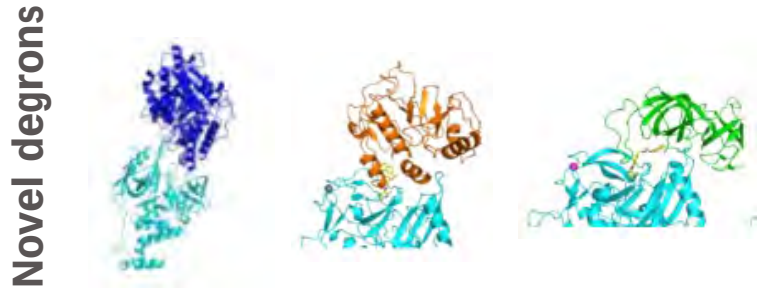


CELMoD library 2019

CELMoD library 2023

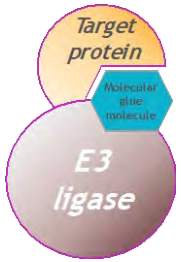
Expanding CELMoD library identifies **novel substrates** and **novel degrons**




Causal human biology

10 CELMoDs for Oncology in full discovery & IND enabling studies



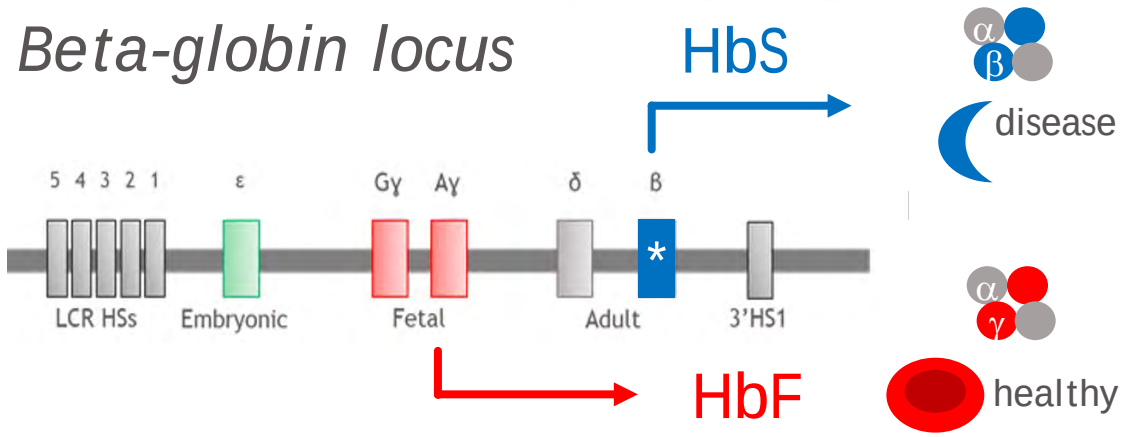

# **Targeting the previously undruggable:** A novel CELMoD for Sickle Cell Disease

## Transformational potential

Oral small molecule that increases fetal hemoglobin to functionally cure **sickle cell anemia** (e.g., eliminate pain crisis, prevent long term organ damage).

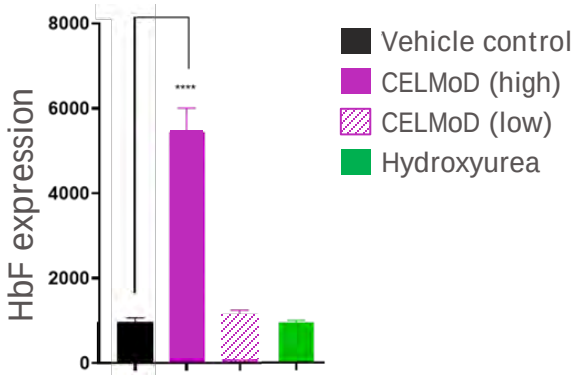
## Causal human biology

Genetically validated targets that lead to persistence of **fetal hemoglobin (HbF)** are associated with improved clinical outcomes in patients with sickle cell anemia.

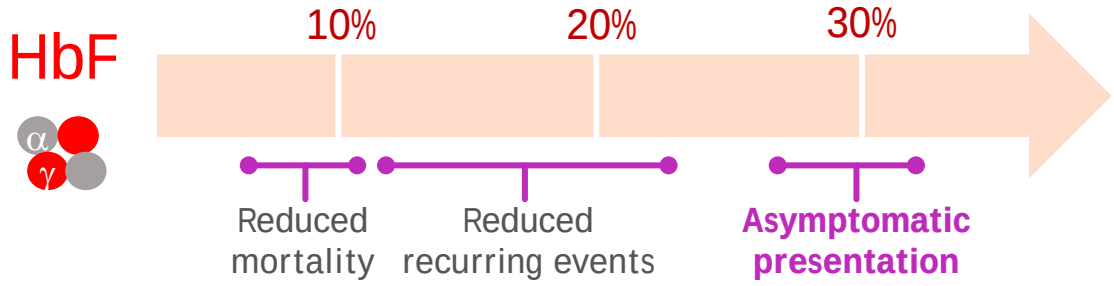



## Matching modality to mechanism

Through our CELMoD proteomics initiative, we have identified CELMoDs that degrade HbF genetic targets and increase HbF in pre-clinical models.



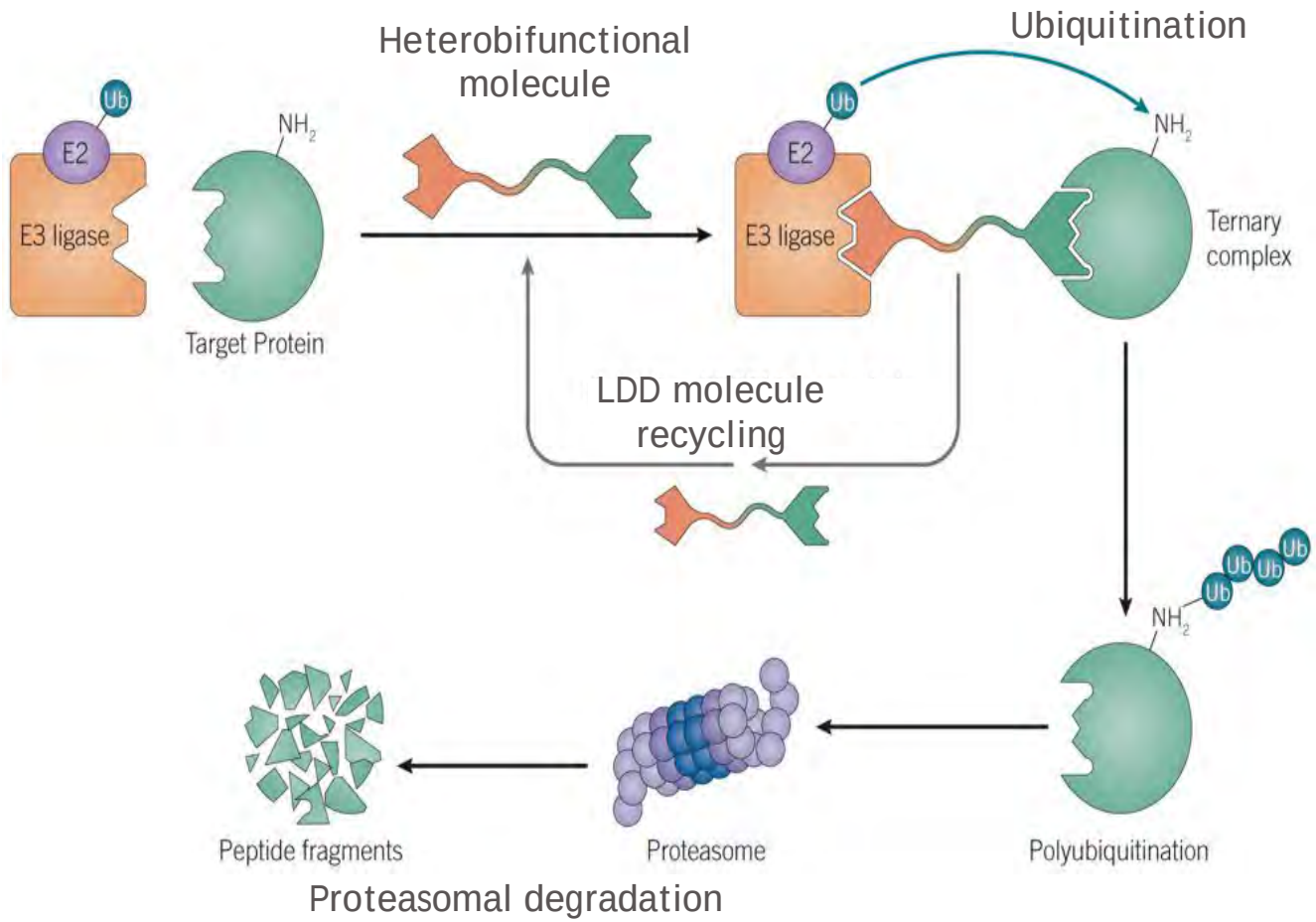

## Path to clinical proof-of-concept



# Ligand directed degraders (LDD) complement CELMoDs in our approach to Targeted Protein Degradation

**Different from CELMoDs**

**Same as CELMoDs**




**Early Development**

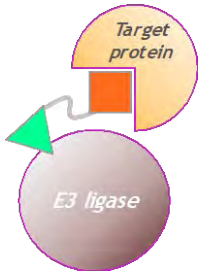
**AR LDD:** Prostate

**BCL6 LDD:** Lymphoma

**IND-enabling studies**

**LDD:** Prostate

**LDD:** Autoimmune



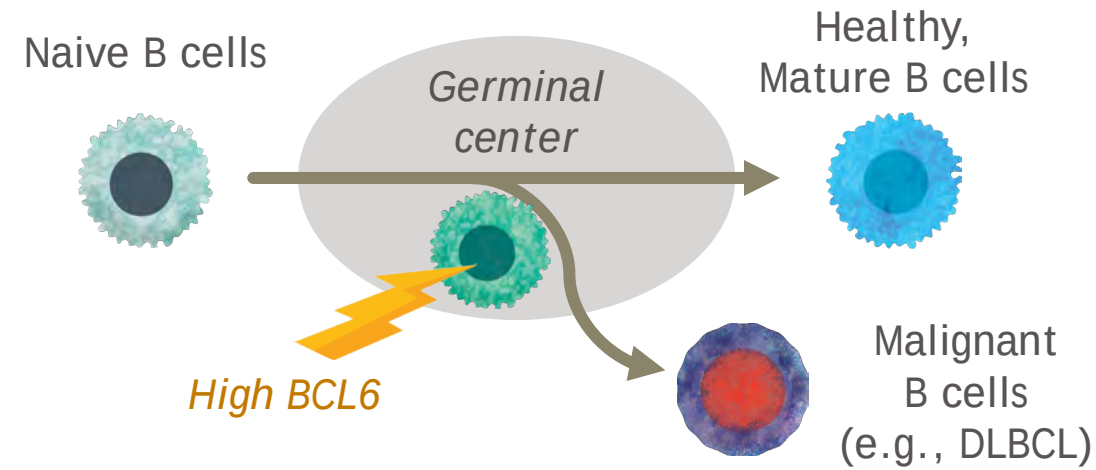

# BMS-986458 is a novel ligand directed degrader (LDD) targeting BCL6 in lymphoma

## Transformational potential

Oral small molecule medicine to treat B cell lymphomas driven by abnormalities in BCL6 signaling pathway.

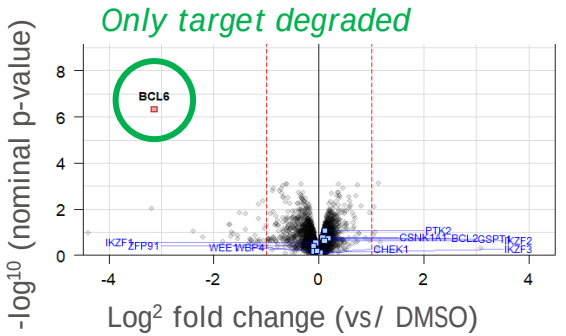
## Causal human biology

**Gain-of-function somatic *BCL6* mutations** lead to B cell lymphomas and **deletion of *BCL6*** prevents B cell maturation.



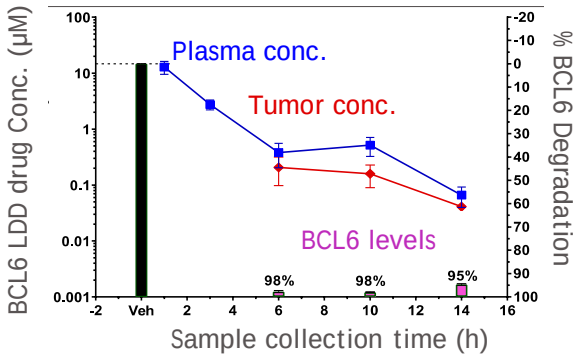

## Matching modality to mechanism

We created a BCL6 LDD that has exquisite selectivity relative to the human proteome

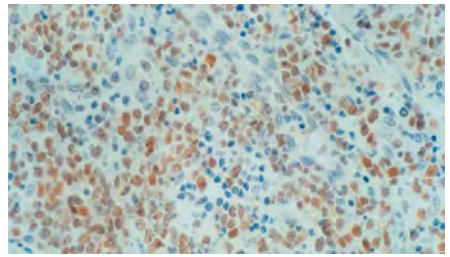



## Path to clinical proof-of-concept

Correlate BCL6 degradation with clinical benefit




BCL6 IHC high expression in ~30% DLBCL

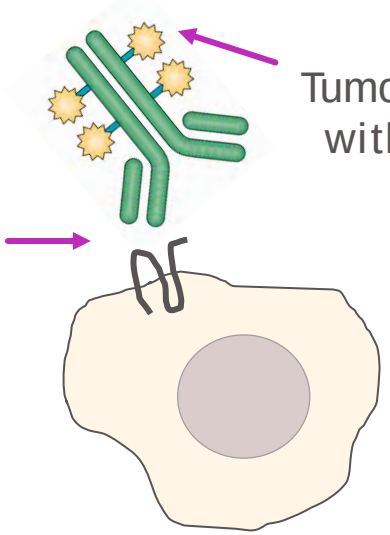


# **A new frontier:** CELMoD ADCs to improve efficacy and safety in hematology/solid tumors

## Causal human biology

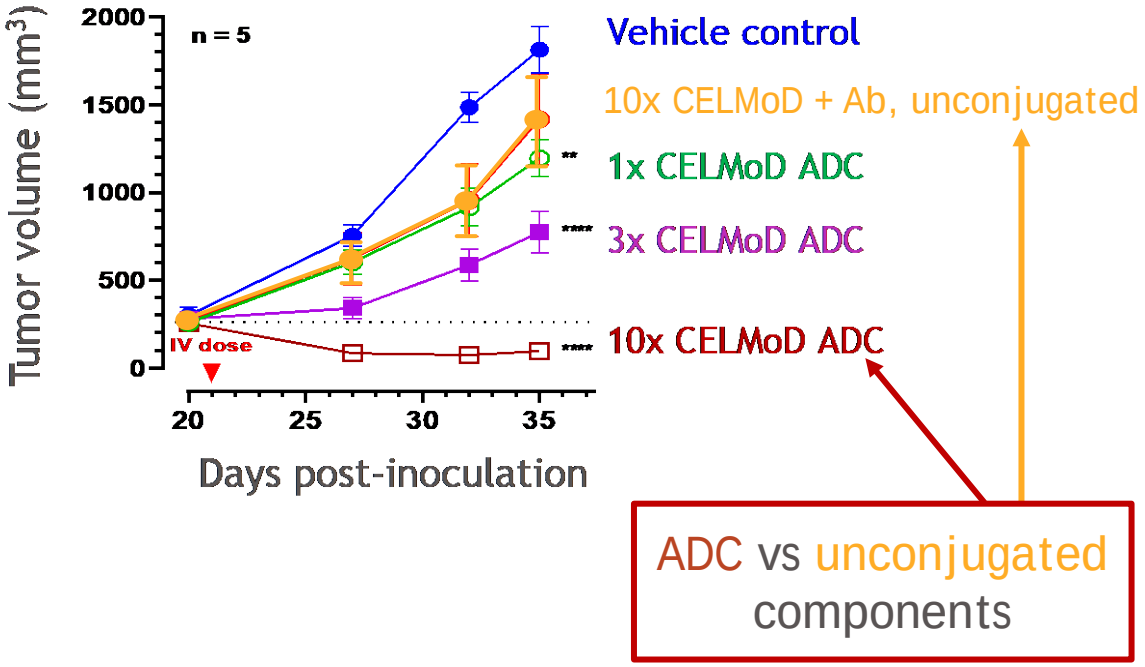
Combine a *clinically validated* tumor targeted antibody with a *clinically validated* tumor cell-biased CELMoD to enhance efficacy and tolerability in hematology/solid tumors

## Matching modality to mechanism




## Path to clinical proof-of-concept

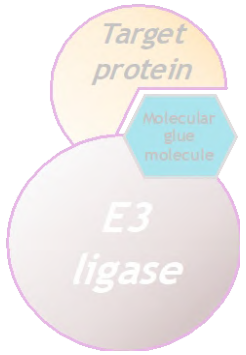
Enhanced efficacy of ADC at lower levels of administered CELMoD



# **Targeted Protein Degradation and Cell Therapy:** Two differentiated platforms for optimizing therapies for patients

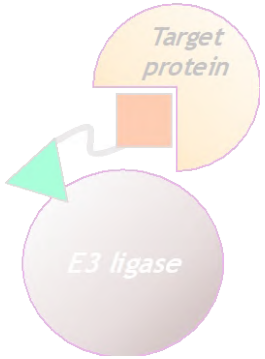
## Targeted Protein Degradation

### Molecular glue



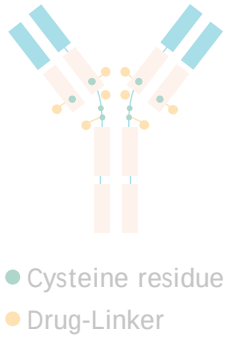

CELMoD

### Hetero-bifunctional




LDD

### ADC degrader



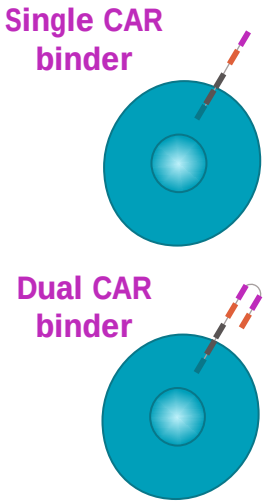

CELMoD ADC

## Matching modality to mechanism

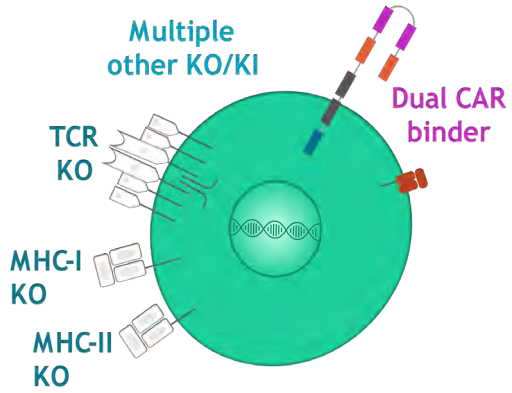
Invention of high-quality therapeutics that match a modality to a molecular mechanism of action

## Cell Therapy

### Autologous



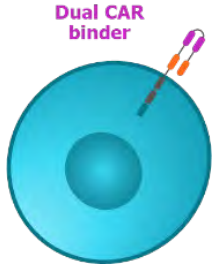
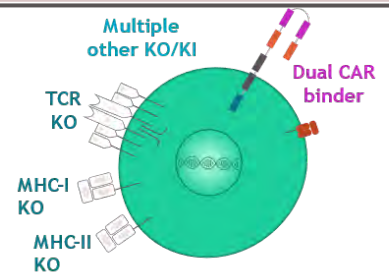

### Next-generation



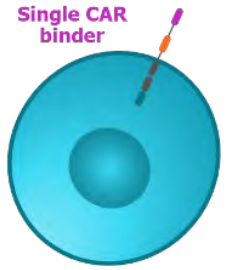
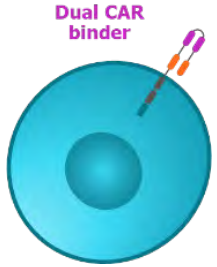
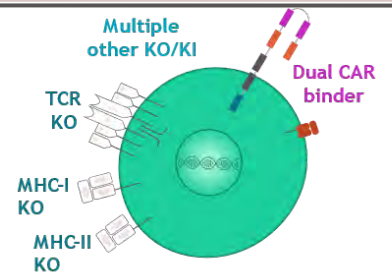
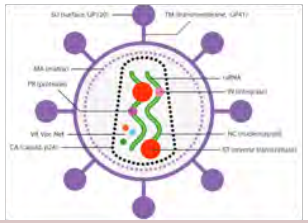
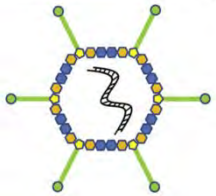

***Allogeneic, iPSC-derived***

**These two platforms unlock novel targets and mechanisms to efficiently deliver INDs with the potential to improve the lives of patients**

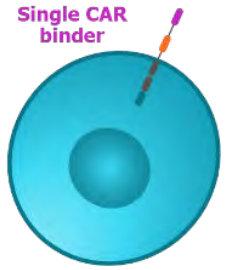
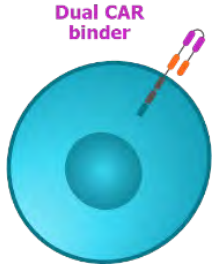
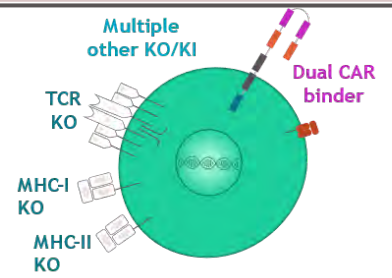
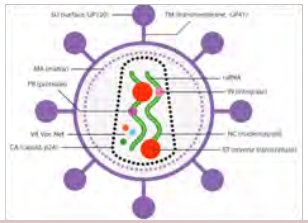
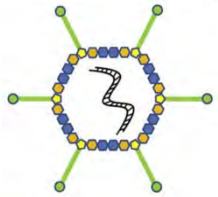
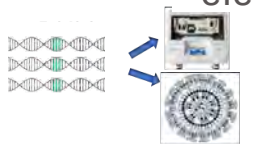
# We are leveraging expertise to enable expansion beyond Hematology while increasing manufacturing efficiency

| | Wave 1 | Wave 2 | Wave 3 |
|---|---|---|---|
| *Next-gen engineering* |  |  |  |
| | Monospecific CAR | Dual Targeting CAR | Engineered CAR/TCR |
| *Evolving delivery systems* | | | |
| *Optimizing manufacturing* | | | |

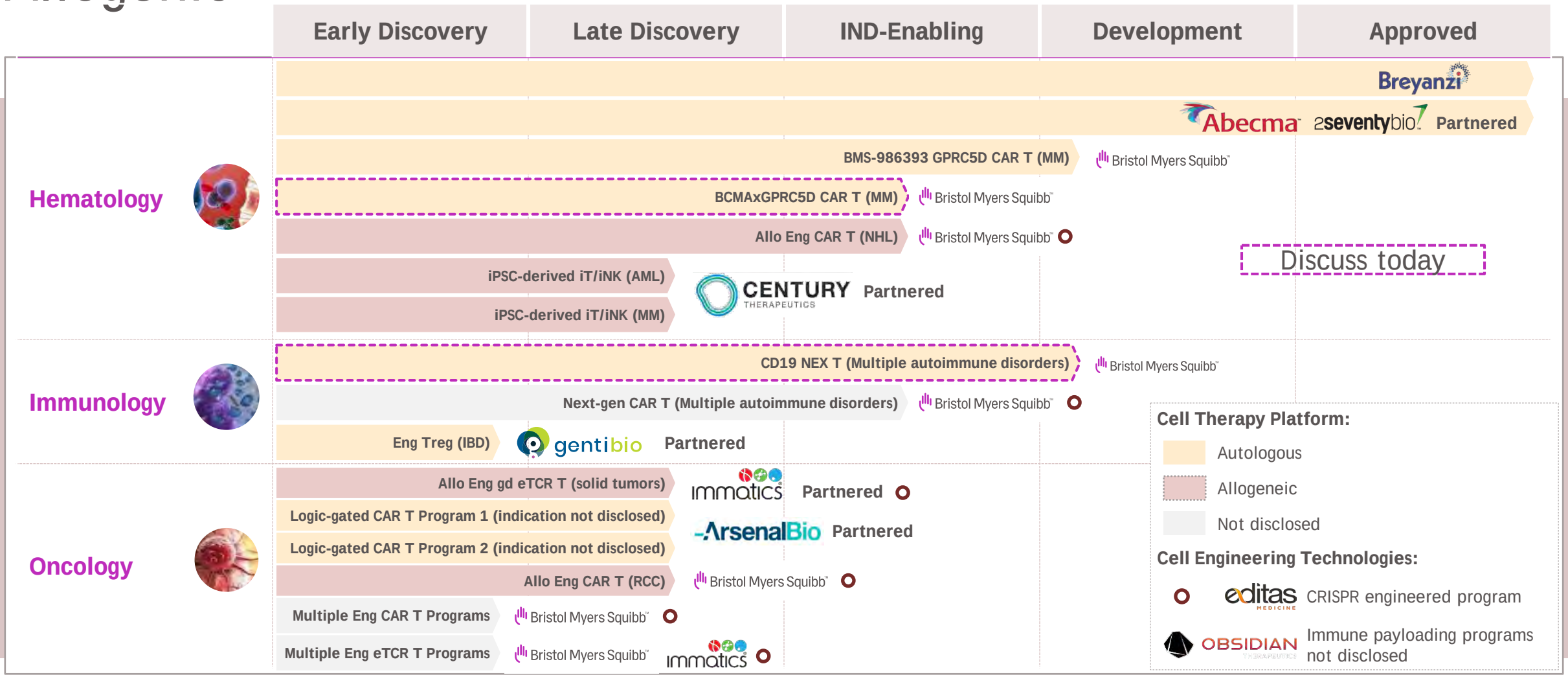
# We are leveraging expertise to enable expansion beyond Hematology while increasing manufacturing efficiency

| | Wave 1 | Wave 2 | Wave 3 |
|---|---|---|---|
| *Next-gen engineering* |  Monospecific CAR |  Dual Targeting CAR |  Engineered CAR/TCR |
| *Evolving delivery systems* |  Lentivirus (LVV) |  Adeno-associated virus (AAV) | electroporation<br>DNA  <br>Lipid nanoparticles (LNP)<br>Non-viral delivery (NVD) |
| *Optimizing manufacturing* | | | |

# We are leveraging expertise to enable expansion beyond Hematology while increasing manufacturing efficiency

| | Wave 1 | Wave 2 | Wave 3 |
|---|---|---|---|
| ***Next-gen engineering*** |  |  |  |
| | **Monospecific CAR** | **Dual Targeting CAR** | **Engineered CAR/TCR** |
| ***Evolving delivery systems*** |  |  | electroporation<br>DNA  <br>Lipid nanoparticles (LNP) |
| | **Lentivirus (LVV)** | **Adeno-associated virus (AAV)** | **Non-viral delivery (NVD)** |
| ***Optimizing manufacturing*** | Autologous<br>Breyanzi Abecma | Autologous<br>NEX T platform | Allogeneic<br>Healthy donor or iPSC |
| | **α/ß T cells** | **α/ß T cells** | **α/ß or γ/δ T cells, iNK/iT cells** |

# **Next-gen Cell Therapy pipeline:** Oncology, Immunology, and Allogenic



Wave 2

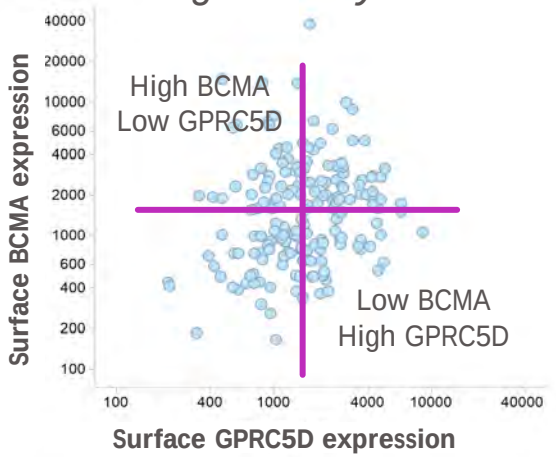
# Dual targeting BCMAxGPRC5D CAR T for relapsed/refractory multiple myeloma

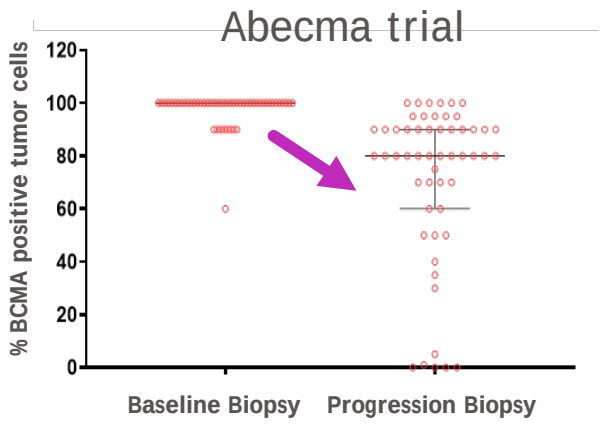
## Transformational potential

Primary and secondary non-response to standard of care therapies remains an unmet medical need in MM.

## Causal human biology

- BCMA and GPRC5D are **clinically validated targets** *independently* expressed in multiple myeloma
- **Antigen heterogeneity** and clonal evolution are factors *limiting efficacy* of BCMA CAR T in multiple myeloma

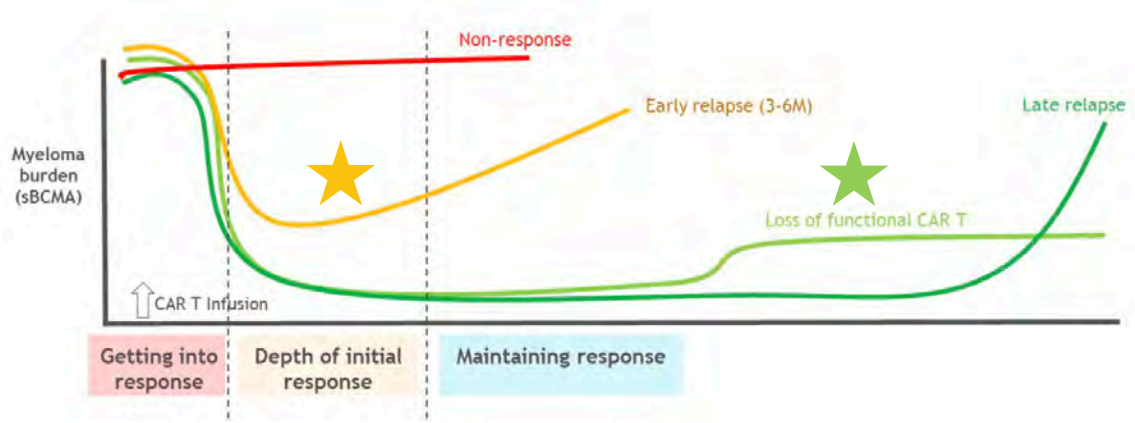



## Matching modality to mechanism

- **Optimized bispecific construct** to overcome intra-and inter-patient antigen variability/heterogeneity and maintain functionality in cases of low BCMA
- **Optimized manufacturing** to develop at scale process improving product quality and manufacturing failures

## Path to clinical proof-of-concept



Wave 2

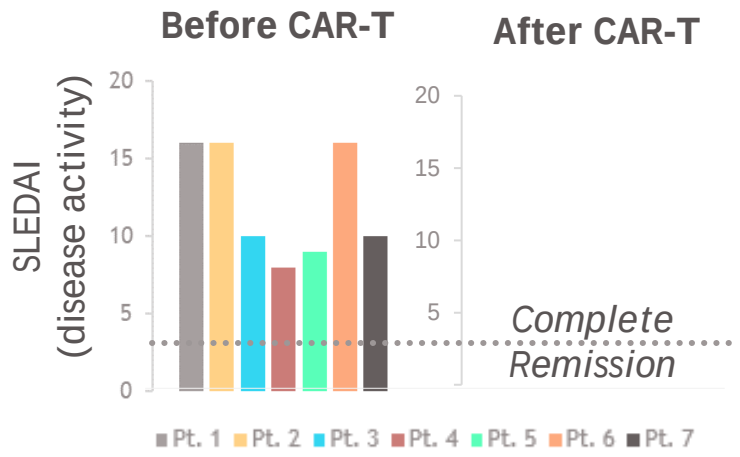
# CD19 NEX T to reset the immune system in multiple Immunology indications

## Transformational potential

**Sequential immunotherapy offers the potential for a functional cure in autoimmunity: 1**: Control inflammation; **2**: Reset immune memory; **3**: Promote homeostasis and repair

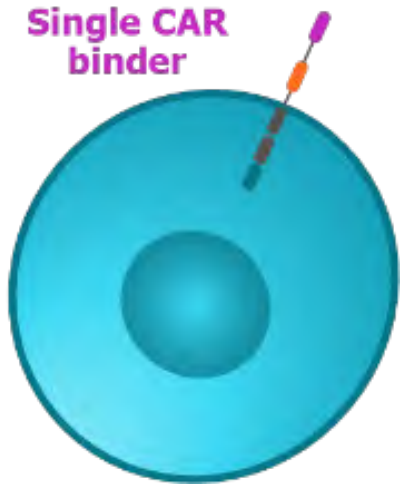
## Causal human biology

Academic study of CD19 CAR-T demonstrates B cell memory reset and functional cure in SLE.




Adapted from Taubmann, J., et al EULAR (2023): 93-94

## Matching modality to mechanism




**Chimeric antigen receptor (CAR)**: CD19 and intracellular domains same as Breyanzi

**Manufacturing**: autologous, single train with shortened turn-around time, lower failure rates

## Path to clinical proof-of-concept

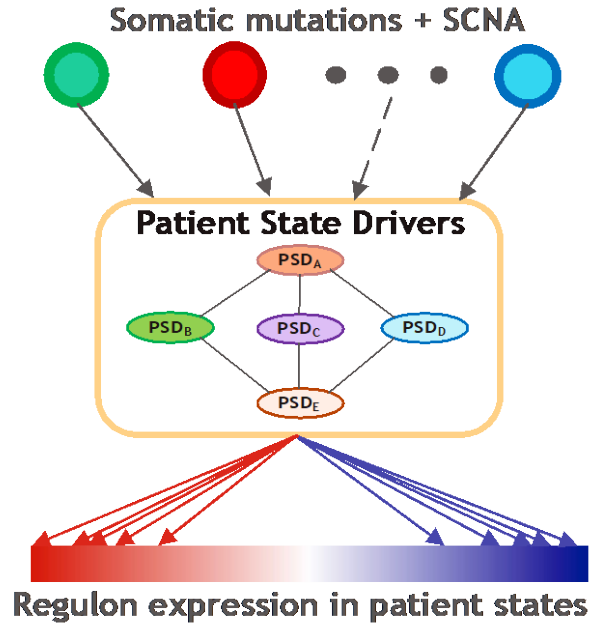
- Expand on findings from academic study in SLE
- Monitor biomarker predictors of cell therapy safety and efficacy
- Demonstrate evidence of resetting immune memory

# Computational science, including Artificial Intelligence and Machine Learning, is applied at all stages of Research

Leverage **patient data** and **predictive analytics** to define causal human biology

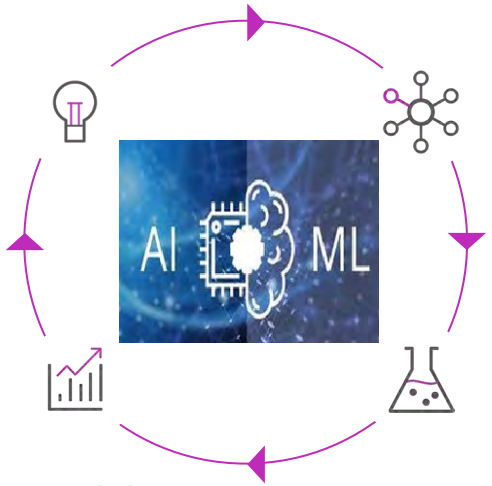
Utilize computational power for **predictive molecule invention** to improve quality and accelerate timelines

Build **mechanistic models** to address specific problems to increase success and accelerate timelines in the clinic



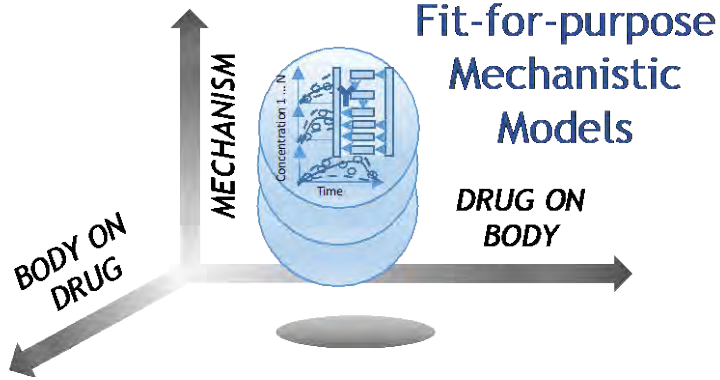

**Predict**: Molecular design and prioritization

**Make**: Ligand synthesis

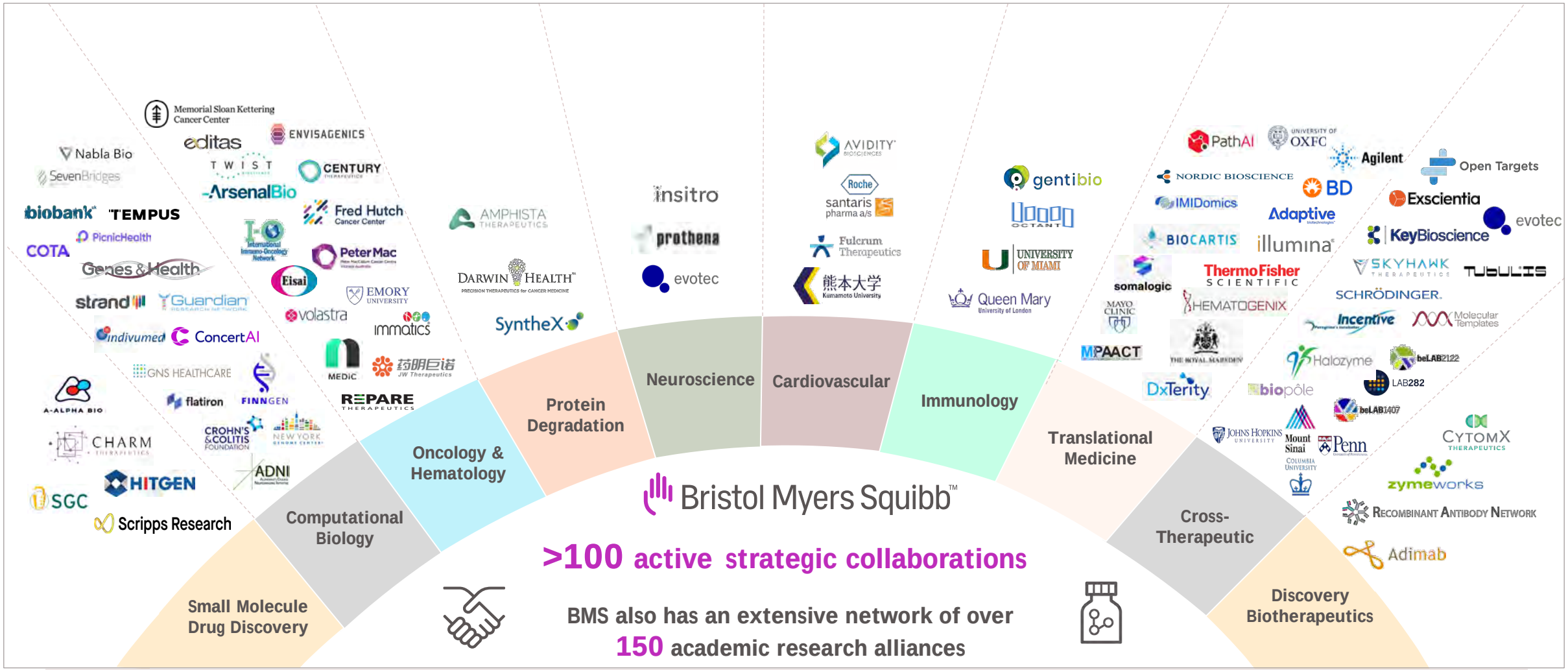



**Learn**: Model retraining

**Test**: Dynamic profiling strategy



# Internal R&D strengths are amplified through extensive network of external partnerships

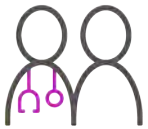


# We have the right strategy at the right time to develop transformational medicines & change patients' lives

## Path to improve R&D productivity

**Causal human biology**
Use of human data for rigorous target validation in drug discovery

**Matching modality to mechanism**
Diverse portfolio of modalities supplemented with AI and ML



**Path to clinical proof-of-concept**
Enable mechanistic models for dose, schedule, and patient selection

**Build on our strength in five core therapeutic areas**

**Diverse modalities, including Targeted Protein Degradation and Cell Therapy**

**All enabled by translational insights, computational science and BD partnerships**

- Increase number of INDs with transformational potential
- Increase success in clinical development

# Program will reconvene following a short break

 (10 min)

# Accelerating our deep development pipeline

## Samit Hirawat, MD

*EVP, Chief Medical Officer, Drug Development*

# An integrated approach to research & development

Oncology | Hematology | Immunology | Cardiovascular | Neuroscience

**Thematic Research Centers (TRCs)**

Biology and translational teams

**Modalities and platforms**

Small molecules, biotherapeutics, cell therapy, targeted protein degradation, nucleic acid therapies

**Research functions**

Computational biology, clinical pharmacology, DMPK, toxicology, translational medicine


Early and Late Clinical Development

Global Development Operations

Global Regulatory Sciences

Global Biometrics & Data Sciences

Worldwide Patient Safety

Portfolio & Strategic Operations

Strategy & Capabilities

**Deliver new medicines with transformational potential with an increased probability of success in Development**

**Maximize innovation and productivity to deliver more medicines to patients faster**

# BMS Pipeline

*Data as of September 14th, 2023*

| | Oncology | | Hematology | | Immunology | | Cardiovascular | Neuroscience |
|---|---|---|---|---|---|---|---|---|
| **Phase 1** | ✦**AHR Antagonist*^**<br>*Solid Tumors* | ✦**Claudin 18.2 ADC**<br>*Solid Tumors* | ✦**SHP2 Inhibitor^**<br>*Solid Tumors* | ✦**alnuctamab**<br>*RR MM* | ✦**BET Inhibitor (BMS-986378)^**<br>*RR NHL* | ✦**Anti-CD40**<br>*Autoimmune Disease* | ✦**IL2-CD25**<br>*Autoimmune Disease* | ✦**FXIa Inhibitor**<br>*Thrombotic Disorders* | ✦**Anti-MTBR-Tau**<br>*Alzheimer's Disease* |
| | ✦**Anti-CCR8^**<br>*Solid Tumors* | ✦**DGK Inhibitor**<br>*Solid Tumors* | ✦**TGFß Inhibitor^**<br>*Solid Tumors* | ✦**Anti-SIRPα**<br>*Hematologic Malignancies* | ✦**CK1α Degrader**<br>*Hematologic Malignancies* | **afimetoran**<br>*CLE* | ✦**PKCθ Inhibitor**<br>*Autoimmune Disease* | | ✦**eIF2b Activator**<br>*Neuroscience* |
| | ✦**Anti-ILT4^**<br>*Solid Tumors* | ✦**JNK Inhibitor**<br>*Solid Tumors* | ✦**TIGIT Bispecific**<br>*Solid Tumors* | ✦**BCMA NKE**<br>*RR MM* | ✦**GPRC5D CAR T**<br>*RR MM* | ✦**CD19 NEX T**<br>*Severe Refractory SLE* | | | ✦**FAAH/MGLL Dual Inhibitor**<br>*Neuroscience* |
| | ✦**Anti-NKG2A^**<br>*Solid Tumors* | ✦**Helios CELMoD**<br>*Solid Tumors* | | ✦**BCL6 LDD**<br>*Lymphoma* | **golcadomide^**<br>*1L DLBCL* | | | | ✦**BTK Inhibitor**<br>*Neuroscience* |
| | ✦**AR LDD**<br>*1L, 2L mCRPC* | ✦**MAGEA4/8 TCER***<br>*Solid Tumors* | | **BET Inhibitor (BMS-986158)**<br>*Hematologic Malignancies* | ✦**CD33 NKE**<br>*RR MM* | | | | |
| **Phase 2** | ✦**Anti-CTLA-4 NF Probody®**<br>*Solid Tumors* | ✦**farletuzumab ecteribulin**<br>*Solid Tumors* | ✦**repotrectinib**<br>*NTRK Pan-Tumor* | ✦**golcadomide^**<br>*RR NHL* | **BREYANZI**<br>*RR MZL* | ✦**afimetoran**<br>*SLE* | **SOTYKTU**<br>*Alopecia Areata* | ✦**MYK-224**<br>*oHCM* | |
| | ✦**Anti-Fucosyl GM1^**<br>*RR SCLC* | **nivolumab+relatlimab**<br>*Stage IV 1L NSCLC* | | ✦**BET Inhibitor (BMS-986158)**<br>*1L MF* | **BREYANZI**<br>*RR MCL* | **SOTYKTU**<br>*DLE* | ✦**TYK2 Inhibitor (BMS-986322)**<br>*Mod-to-Severe Psoriasis* | ✦**danicamtiv**<br>*Dilated Cardiomyopathy* | |
| | ✦**Anti-IL-8^**<br>*Solid Tumors* | **nivolumab+relatlimab**<br>*1L HCC* | | **ABECMA**<br>*1-4L+ MM* | **REBLOZYL**<br>*A-Thalassemia* | | | **CAMZYOS**<br>*HFpEF* | |
| | ✦**BET Inhibitor (BMS-986378)^**<br>*Solid Tumors* | **nivolumab+relatlimab**<br>*2L+ HCC (Post-TKI)* | | **BREYANZI**<br>*3L+ CLL* | **ONUREG**<br>*MDS* | | | | |
| | | | | | **BREYANZI**<br>*RR FL* | | | | |
| **Phase 3** | ✦**SC nivolumab + rHuPH20 (multi-indications)**<br>*2L RCC* | **OPDIVO**<br>*Stage IB-IIIA Adjuvant NSCLC** | **OPDIVO + YERVOY**<br>*St3 Unresectable NSCLC* | ✦**iberdomide**<br>*2L+ MM* | **INREBIC**<br>*MF* | ✦**cendakimab**<br>*Eosinophilic Esophagitis* | **SOTYKTU**<br>*SLE* | ✦**milvexian**<br>*Secondary Stroke Prevention** | |
| | **OPDIVO**<br>*Adjuvant HCC* | **OPDIVO + YERVOY**<br>*1L HCC* | **OPDUALAG**<br>*Adjuvant Melanoma* | **iberdomide**<br>*Post-ASCT Maintenance NDMM* | **REBLOZYL**<br>*1L TD MF Associated Anemia* | ✦**LPA1 Antagonist**<br>*IPF* | **SOTYKTU**<br>*Sjögren's Syndrome* | **milvexian**<br>*Acute Coronary Syndrome** | |
| | **OPDIVO**<br>*Peri-adjuvant MIUC* | **OPDIVO + YERVOY**<br>*1L MIUC* | **OPDUALAG**<br>*2L/3L+ MSS mCRC* | ✦**mezigdomide**<br>*2L+ MM Vd* | **REBLOZYL**<br>*1L NTD MDS Associated Anemia* | **LPA1 Antagonist**<br>*PPF* | **ZEPOSIA**<br>*Crohn's Disease* | **milvexian**<br>*Atrial Fibrillation** | |
| | **OPDIVO**<br>*Peri-adjuvant NSCLC* | **OPDIVO + YERVOY**<br>*1L+ MSI High CRC* | ✦**SC nivolumab + relatlimab + rHuPH20**<br>*1L Melanoma* | **mezigdomide**<br>*2L+ MM Kd* | | **SOTYKTU**<br>Psoriatic Arthritis | ✦**obexelimab*#**<br>*IgG4-Related Disease* | **CAMZYOS**<br>*nHCM* | |

Bristol Myers Squibb™

* Partner-run study; ^ Trials exploring various combinations; ✦NME leading indication; # BMS territory

# Immunology

# Addressing high unmet medical need in Immunology

| Asset | Approved | Registrational† | Exploratory/PoC Studies† |
|---|---|---|---|
| SOTYKTU™ (deucravacitinib) 6 mg tablets | Moderate-to-severe Psoriasis | • Psoriatic Arthritis<br>• Sjögren's Syndrome<br>• Systemic Lupus Erythematosus | Alopecia Areata |
| ZEPOSIA® (ozanimod) 0.92 mg capsules | Moderate-to-severe Ulcerative Colitis | Moderate-to-severe Crohn's Disease | - |
| CD19 NEX T | - | - | Severe, refractory Systemic Lupus Erythematosus |
| cendakimab | - | • Eosinophilic Esophagitis<br>• Eosinophilic Gastroenteritis[1] | - |
| LPA$_1$ Antagonist | - | • Idiopathic Pulmonary Fibrosis<br>• Progressive Pulmonary Fibrosis | - |



1. Japan registrational trial; † ongoing or initiating 2023/2024

# Significant unmet need in pulmonary fibrosis

## Disease

- Fibrotic ILD: Associated with thickening of the lung lining, causing irreversible damage[1]
- IPF: Fatal disease with 3-5 years median survival[2]
- PPF: Heterogenous group of ILDs with a progressive-fibrosing phenotype[1]

## Unmet Need

- Ideal novel therapies which can be used alone or in combination with approved anti-fibrotics
- Treatments needed to address underlying fibrosis and reduce decline in lung function
- Tolerable treatment options to increase adherence and QoL improvement

## Treatment Opportunity

- Deliver a potential new product with an improved efficacy and tolerability profile over current treatment options
- Approved therapies do not treat underlying fibrosis or halt disease progression

1. Raghu. *Am J Respir Crit Care Med*. 2022 May 1;205(9):e18-e47. 2. Raghu. *Am J Respir Crit Care Med*. 2011 Mar 15;183(6):788-824.

# LPA$_1$ signaling is central to the pathogenesis of fibrotic lung diseases

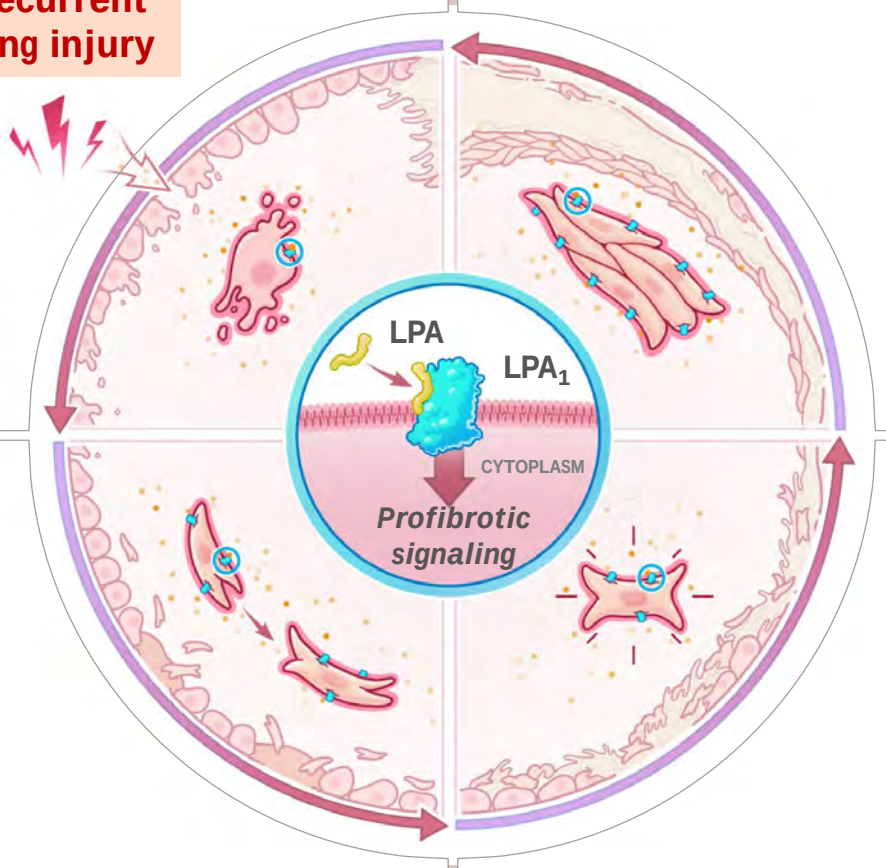
**Recurrent lung injury**

## 1. Epithelial cell apoptosis[1]

LPA$_1$ signaling promotes apoptosis of alveolar epithelial cells

## 2. Fibroblast recruitment[2,3]

LPA$_1$ signaling induces fibroblast chemotaxis to the site of injury




## 3. Fibroblast proliferation & activation[4,5]

LPA$_1$ signaling stimulates fibroblast proliferation and collagen secretion

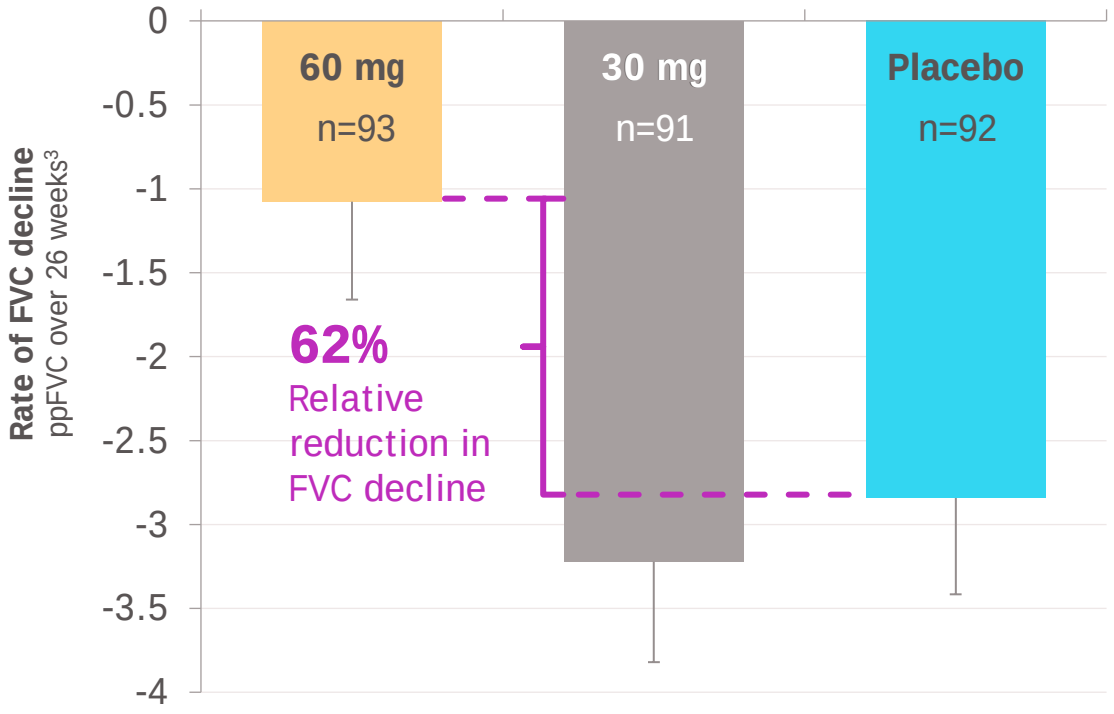
## 4. Fibroblast survival[1]

LPA$_1$ signaling increases fibroblast resistance to apoptosis

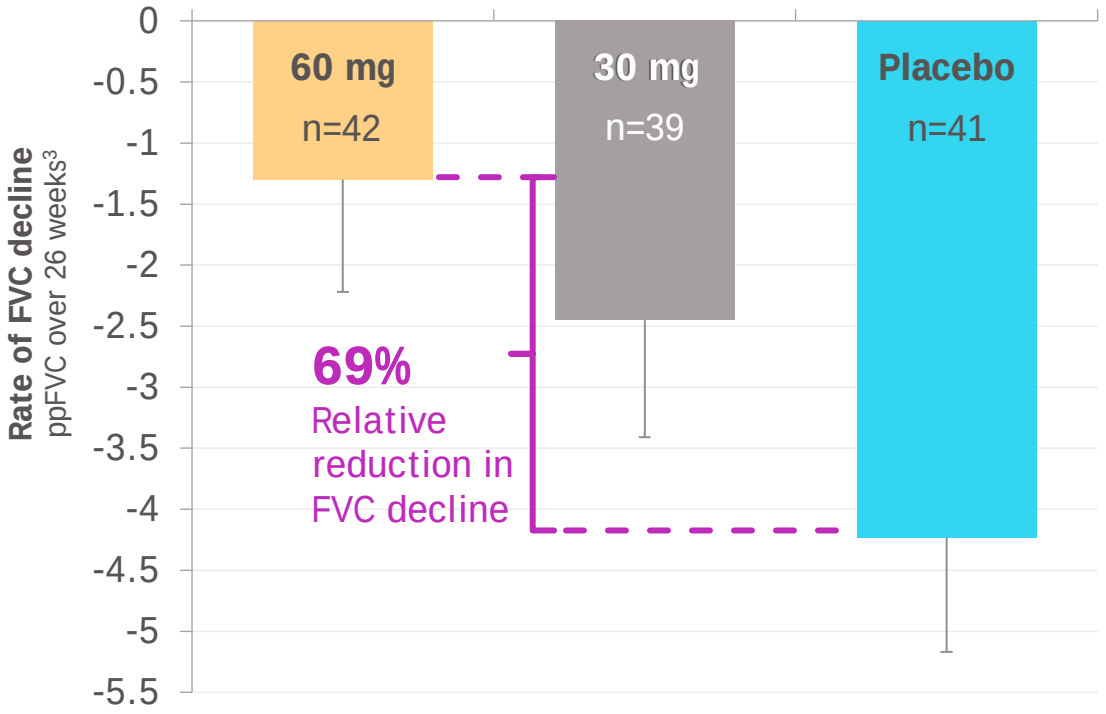
1. Funke M, et al. *Am J Respir Cell Mol Biol*. 2012;46(3):355-364. 2. Tager AM, et al. *Nat Med*. 2008;14(1):45-54. 3. Swaney JS, et al. *Br J Pharmacol*. 2010;160(7):1699-1713.
4. Cheng PTW, et al. *J Med Chem*. 2021 Nov 11;64(21):15549-15581. 5. Decato BE, et al. *Respir Res*. 2022;23(1):61.

# Robust Phase 2 IPF and PPF results support development of BMS-986278 across the spectrum of progressive lung fibrosis

## IPF[1]




## PPF[2]




**Compelling reduction in the decline of lung function at 60 mg in both IPF and PPF cohorts, with a favorable and differentiated tolerability profile**



1. Corte TJ, et al. *Am J Respir Crit Care Med*. 2023;207:A2785. 2. Corte TJ, et al. ERS 2023 [Presentation #RCT800]. 3. Mean +SEM, primary endpoint, linear model with supplementary estimand

# ALOFT-IPF[1] and ALOFT-PPF[2]: Two parallel Phase 3 registrational studies

**Key Inclusion:**

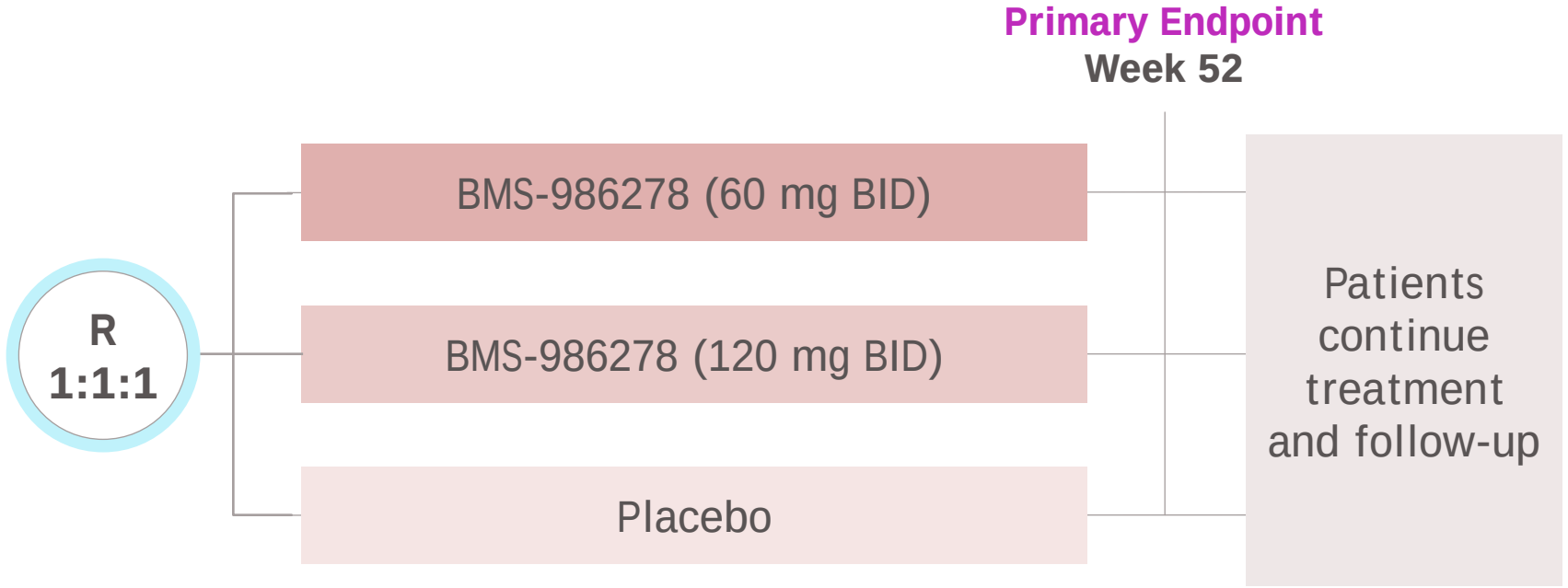
- >40 yo (IPF); >21 yo (PPF)
- FVC ≥40%, DLco >25%
- With or without concomitant background SoC

**Primary Endpoint:**

- Change in FVC (mL) at week 52

**Key Secondary Endpoint:**

- Time to disease progression
- Patient-reported outcomes
- Change in 6MWT




**Phase 3 studies initiating**

**Data anticipated in 2026 (IPF) and 2028 (PPF)**

1. NCT06003426; 2. NCT06025578

# Significant unmet medical need in lupus

## Complex Disease

- **Chronic auto-immune disorder** of widespread inflammation leading to end-organ damage and death
- **Impact on QoL** due to multiple associated comorbidities (i.e., infections, CV disease)

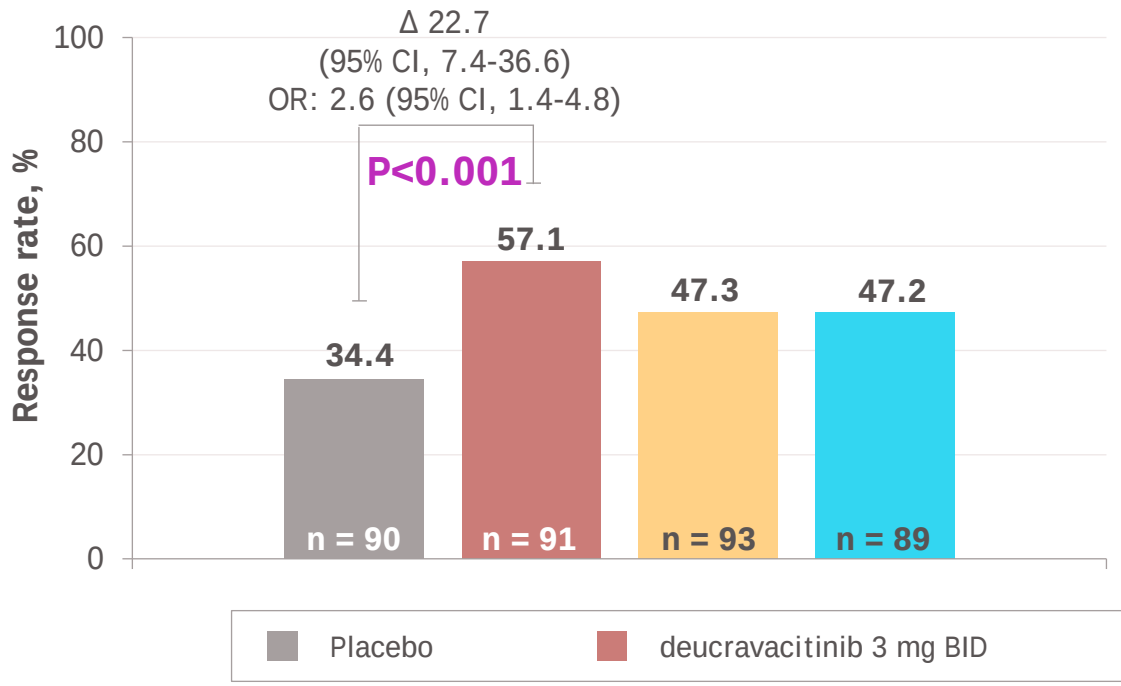
## Current Treatment Landscape

- **Few approved branded therapies**
- **Current options have limited efficacy**
- **Many therapies require repeated injections**

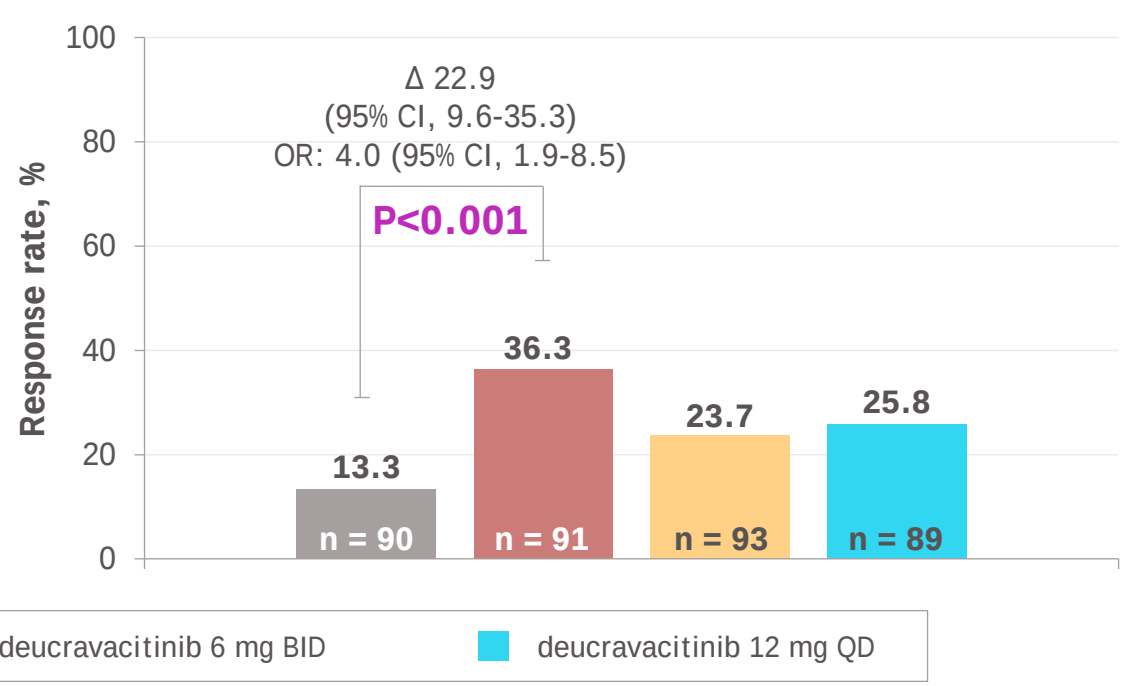
**Significant Need:** **Opportunity for patients to have a novel, oral, effective medicine**

# SLE Phase 2 results across endpoints provide rationale for Phase 3

## SRI(4) response rates at week 48[1]




## Achievement of Lupus Low Disease Activity (LLDAS) at week 48[1]





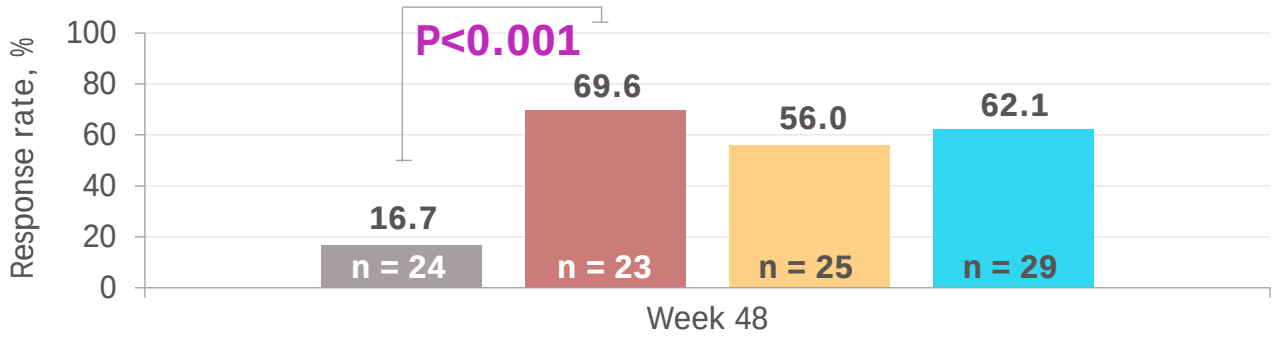
**Met the primary endpoint, and all secondary endpoints achieved or meaningfully improved at week 48 with a well tolerated safety profile consistent with earlier trials**

1. Morand E, et al. *Arthritis & Rheumatology*. 2023 Feb;75(2):242-252.; Multiplicity-adjusted secondary end point; Primary endpoint was met: percentage of patients achieving SRI(4) at week 32 (P<0.001)

# SLE Phase 2 data demonstrates compelling efficacy across domains

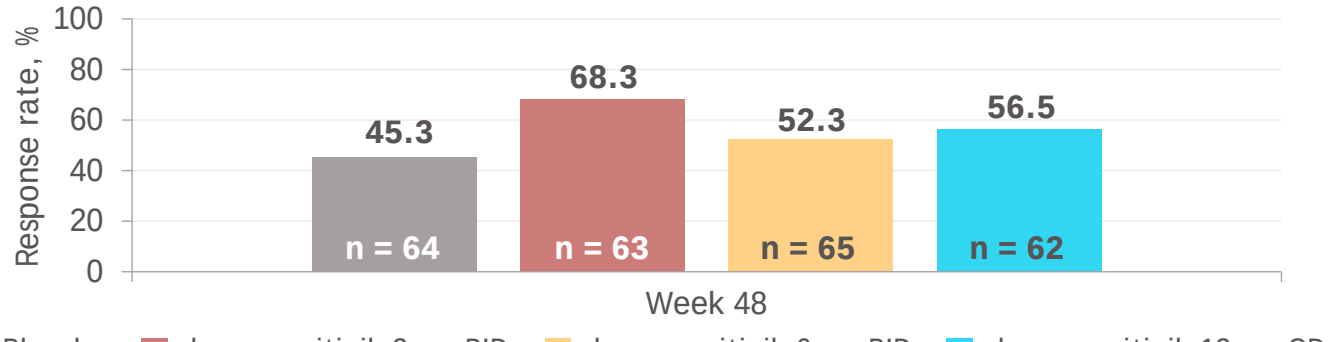
## Skin Domain: CLASI-50[1,2]

Baseline CLASI activity score ≥ 10 with ≥ 50% decrease from baseline

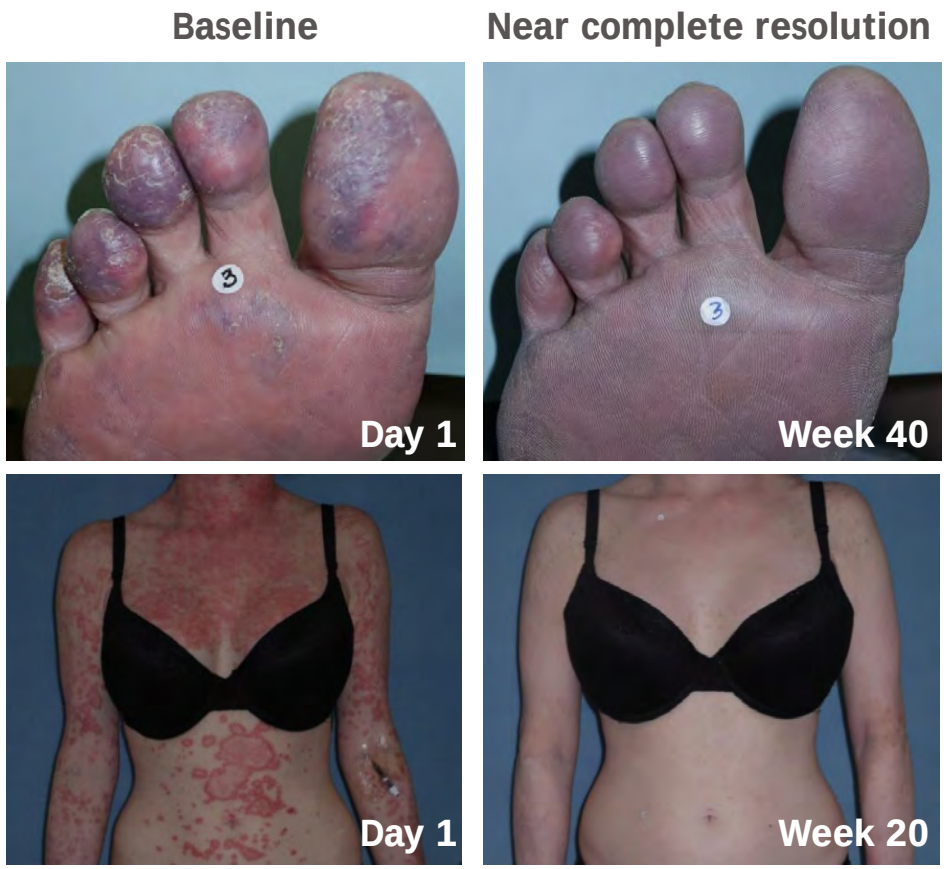



## Joint Domain: Joint Count-50[1,3]

≥ 6 active (tender + swollen) joints at baseline, with ≥ 50% decrease from baseline




## Patient response treated with deucravacitinib in the PAISLEY Phase 2 study[4]






1. Morand E, et al. *Arthritis & Rheumatology*. 2023 Feb;75(2):242-252. 2. Multiplicity-adjusted secondary end point; Δ 52.9 (95% CI, 21.7-72.7), OR: 10.5 (95% CI, 2.5-43.0). 3. Exploratory non–multiplicity-controlled end point; 4. NCT03252587, Images used with investigator permission

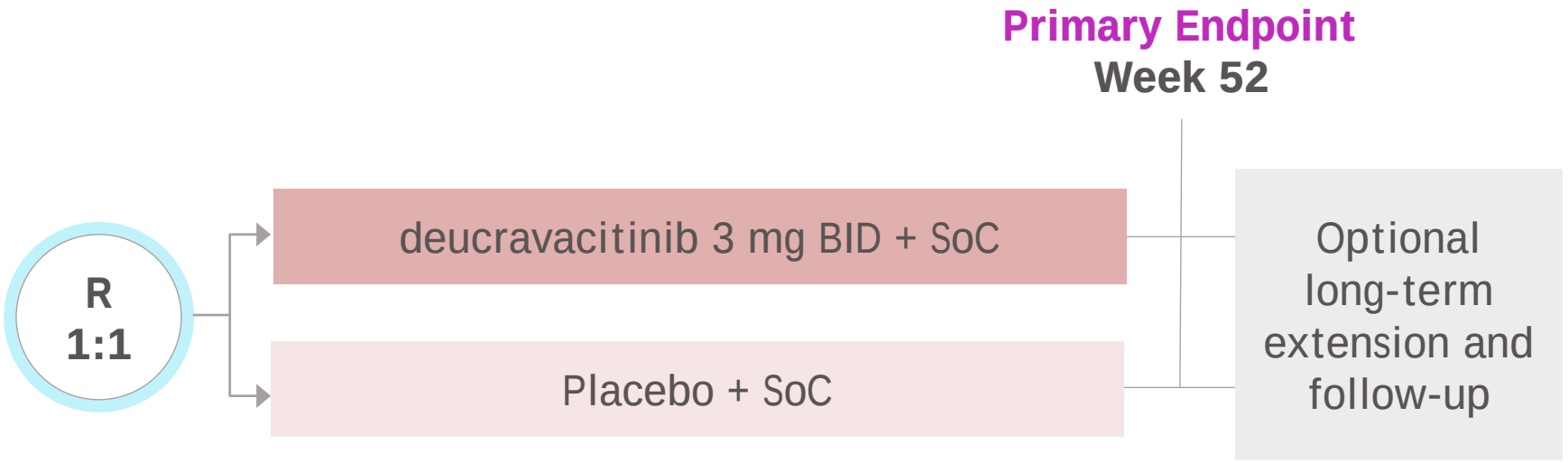
# SLE Phase 3 registrational program (POETYK-SLE-1[1] and POETYK-SLE-2[2] parallel studies)

**Inclusion Criteria:**

- SLEDAI-2K ≥ 6 with skin and/or joint involvement
- BILAG:1A or 2Bs
- Seropositivity
- Stable background therapy
- No severe organ-threatening disease

**Primary Endpoint:**

- SRI(4) at Week 52




**Data anticipated in 2026**

1. NCT05617677; 2. NCT05620407

# Development in Sjögren's Syndrome supported by Phase 2 results in SLE

## Unmet Need

- SjS is an autoimmune disease characterized by dry eye and mouth with potential involvement of other organs
- No approved therapies that slow the progression of SjS
- Most patients require supportive care to manage symptoms[1]

## Disease mechanism and genetic data support reason to believe

- Genetic studies implicate TYK2 pathways in SjS[2]
- Interferon activity is increased systemically and in tissue of patients with SjS[3]
- SjS and SLE have shared pathogenesis with common biomarkers and lab findings

**Based on similarity to SLE and high unmet need, the Phase 3 trial in Sjögren's Syndrome is ongoing**


1. https://sjogrens.org/understanding-sjogrens/treatment; 2. Khatri B, et al. *Nature Communications*. 2022;13(4287):1-17. 3. Brkic Z, et al. *Ann Rheum Dis*. 2013;72:728-735.

# Sjögren's Syndrome Phase 3 study (POETYK-SjS-1[1])

**Inclusion Criteria:**

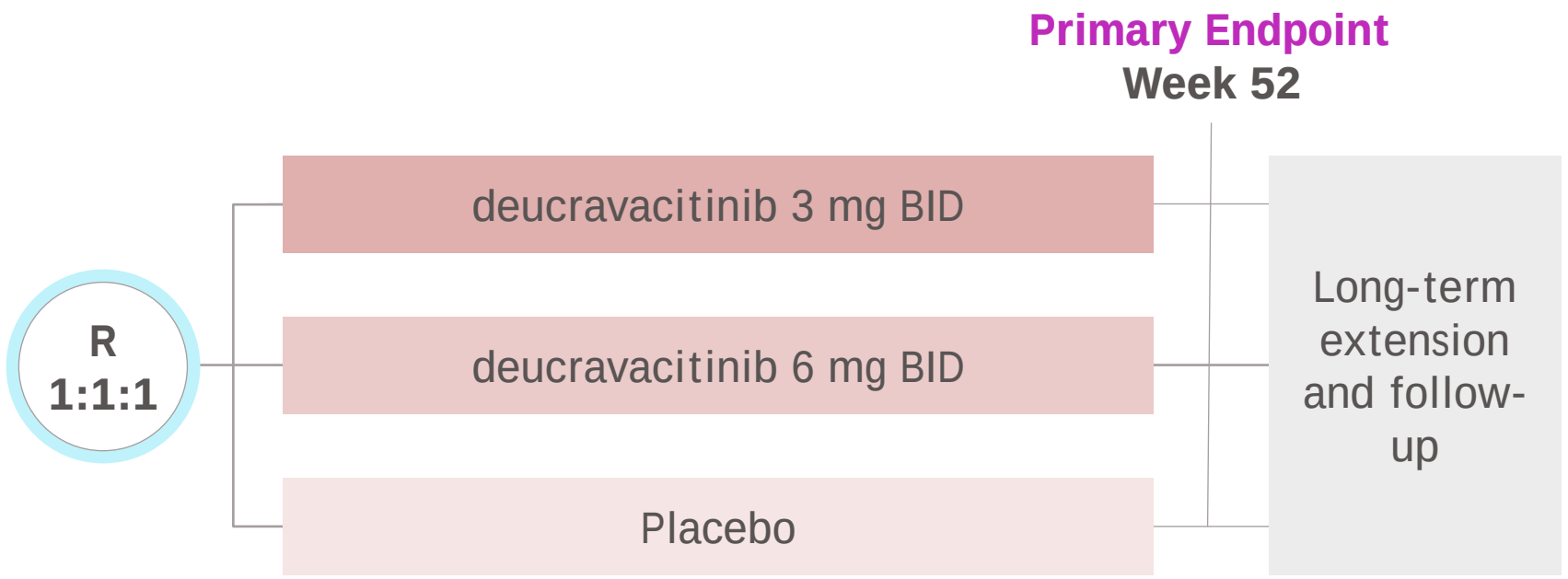
- Meet 2016 ACR/EULAR criteria with disease duration ≤ 7.5 yrs
- Anti-SSA/RO+
- ESSDAI ≥5

**Primary Endpoint:**

- ESSDAI change from baseline at Week 52

**Key Secondary Endpoint:**

- ESSPRI




**Data anticipated in 2027**


1. NCT05946941

# First-in-class TYK2 inhibitor to treat PsO, with broad potential across PsA, SLE, SjS, and AA

| Today | Near-Term | Future |
|---|---|---|
| **Psoriasis** | **Psoriatic Arthritis** | **Systemic Lupus Erythematosus, Sjögren's Syndrome, & Alopecia Areata** |
| Sotyktu is approved for moderate-to-severe PsO and has **reset the bar for oral treatments** | Leveraging **strong relationship between PsO and PsA**, sharing common pathogenic mechanisms[1] | **Disruptive potential in SLE** and **new opportunity in SjS** given similar disease pathogenesis<br>**Potential in AA** based on inhibition of the IL-12/IFNγ axis[2] |

**Oral, tolerable, mechanistically differentiated TYK-2 targeting agent provides broad applicability across a range of immune-mediated diseases**

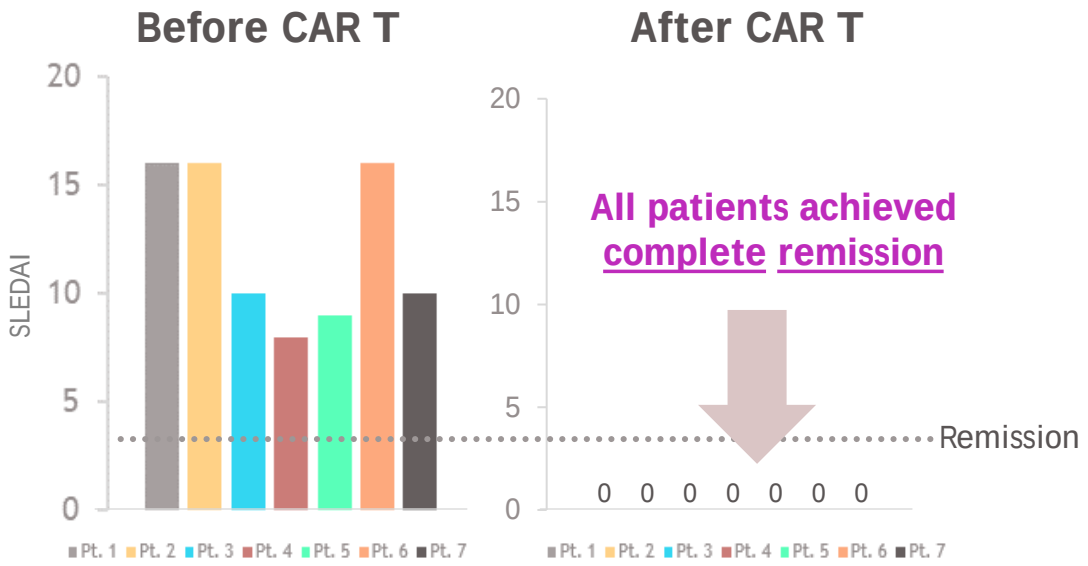


1. Mease PJ, Armstrong AW. *Drugs*. 2014;74:423–441. 2. Edelkamp J, et al. ESDR 2022 [poster presentation].

# Compelling CAR T data in lupus supports expanding new modality to address unmet need

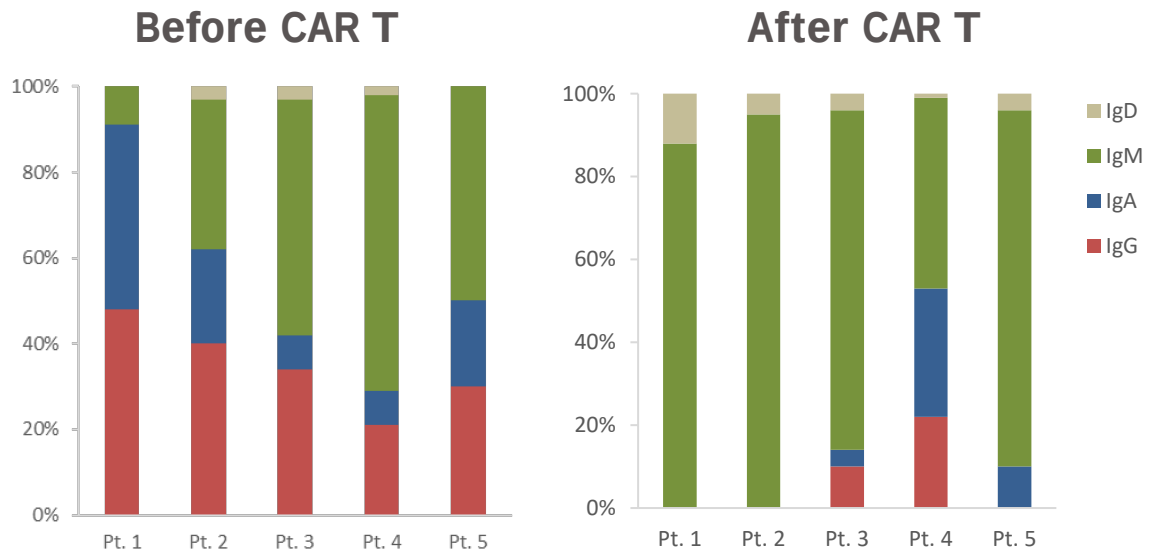
## Potential transformational efficacy and favorable safety demonstrated with CD19 CAR T

### Disease Remission Post CAR T Treatment[1]




7/7 pts achieved durable DORIS complete remission off all therapy; encouraging safety & tolerability with only grade 1 cytokine release syndrome and no neurotoxicity

### Data Suggests Immune System Reset[2]



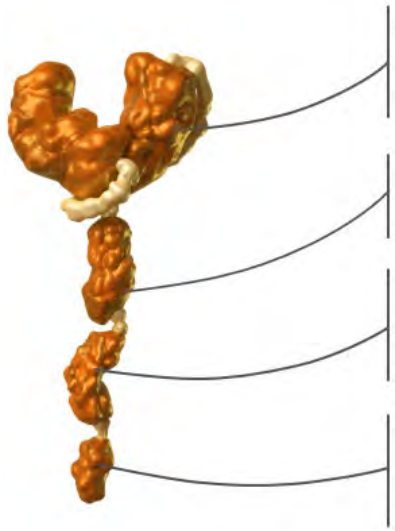

Patient immune system reset after CAR T treatment: Measurement of immunoglobulins shift from mature B-cells expressing IgA & IgG to naïve B-cells expressing IgM & IgD



1. Adapted from Taubmann, J., et al EULAR (2023): 93-94. 2. Adapted from Mackensen, A., Müller, F., Mougiakakos, D. *et al. Nat Med* **28**, 2124–2132 (2022)

# Potential transformative treatment option for patients with certain severe immunologic diseases

## BMS-986353 expresses the same CD19 specific CAR construct as best-in-class Breyanzi[1,2]



- Anti-CD19 Targeting Domain[1,2]
  - Extracellular single-chain variable fragment to recognize CD19
- CD28 Hinge/Transmembrane Domain[3]
- 4-1BB Costimulatory Domain[1,2]
  - *Stimulates CD8⁺ central memory T-cell generation and favors CAR T-cell persistence[4]*
- CD3-ζ Activation Domain[1,2]

Breyanzi achieves rapid and complete B-cell depletion in patients with B-cell malignancies

## NEX T: Next generation technology manufacturing platform balances speed and robustness

### Faster turnaround time

- *Optimized cell expansion time*

### Increased productivity

- *Leverages a closed and automated manufacturing platform leads to increased yield and lowered cost*

### Innovative technologies

- *Proprietary harvest technology improves purity*

**CD19 NEX T: Differentiated safety profile of Breyanzi with an enhanced manufacturing process**

1. Makita S, et al. *Drugs Context*. 2019;8:212567. 2. Teoh J, et al. *Blood*. 2019;134:593. 3. Jayaraman J, et al. *EBioMedicine*. 2020;58:102931. 4. Weinkove R, et al. *Clin Transl Immunol*. 2019:8;e1049.

# Severe, refractory SLE Phase 1 study

**Open label[1]: Assess the safety, preliminary efficacy, pharmokinetics**

## Key eligibility criteria:

- 2019 ACR/EULAR classification criteria of SLE
- Presence of anti-dsDNA, anti-histone, anti-chromatin, or anti-Sm antibodies
- ≥ 1 major organ system with a BILAG A score
- Inadequate response to glucocorticoids and to at least 2 treatments

**Part A**
Dose escalation

**Part B**
Dose expansion
to optimize RP2D

**Data anticipated in 2024**

1. NCT05869955

# Rapidly expanding into other B-cell mediated diseases

Numerous B-cell mediated diseases with select patient populations

- SLE
- Systemic Sclerosis
- Idiopathic inflammatory Myopathies
- Multiple Sclerosis
- Other indications

Adding cohorts to Phase 1 severe, refractory SLE trial (e.g., myositis and others)

Phase 1 trial in Multiple Sclerosis to be initiated

# Rapidly building our portfolio in Immunology

- **$LPA_1$ Antagonist:** New potential standard of care in IPF & PPF with registrational Phase 3 programs initiating
- **Sotyktu**: Compelling Phase 2 data supports ongoing registrational Phase 3 programs in SLE & SjS
- **CD19 NEX T:** Phase 1 study in severe, refractory SLE initiated and expanding into other immunologic diseases
- Exciting additional registrational Phase 3 programs:
  - **Cendakimab** in EoE & EGE
  - **Zeposia** in CD
  - **Sotyktu** in PsA
- Exploring **5** additional assets in early development across indications

**Addressing immunologic diseases with high unmet need impacting 8M+[1] patients**



1. 2023 estimates from Decision Resource Group & BMS Internal Analysis across indications in the U.S. & EU5

# Hematology

# Addressing high unmet medical need in Hematology

| Asset | Approved | Registrational† | Exploratory/PoC Studies† |
|---|---|---|---|
| Abecma (idecabtagene vicleucel) | 5L+ R/R MM[1] | • 3L+ triple-class exposed MM<br>• Sub-optimal response post-SCT | - |
| Breyanzi (lisocabtagene maraleucel) | • 2L LBCL<br>• 3L+ LBCL | • R/R CLL/SLL<br>• 2L+ FL; 3L+ FL<br>• R/R MCL<br>• R/R MZL | - |
| Reblozyl (luspatercept-aamt) for injection 25mg • 75mg | • 1L MDS<br>• 2L TD MDS-RS<br>• TD & NTD[2] Beta Thalassemia | • 1L NTD MDS<br>• TD MF | Alpha Thalassemia[3] |
| alnuctamab | - | 2-4L MM | Novel combinations in MM |
| BET Inhibitor (BMS-986158) | | | Novel combinations in MF |
| iberdomide | - | • NDMM post-SCT maintenance<br>• 2-3L MM | - |
| golcadomide | - | 1L LBCL | • 1L DLBCL<br>• R/R PTCL[4] |
| GPRC5D CAR T | - | Quadruple-class exposed MM | Novel combinations |
| mezigdomide | - | • 2-4L MM<br>• 2L+ MM | - |

1. Approved in 4L+ ex-US; 2. NTD approved ex-U.S.; 3. Asia-only study; 4. Japan-only study; † ongoing or initiating 2023/2024

# Rapidly expanding use in the treatment of anemia

## FDA approved as first-line treatment of anemia in adults with lower-risk MDS

| | | |
|---|---|---|
| First and only therapy to demonstrate superiority over epoetin alpha in the head-to-head Phase 3 COMMANDS study | Nearly doubled transfusion independence with concurrent hemoglobin increase vs epoetin alpha with a well-established safety profile | Demonstrates more durable responses of transfusion independence vs epoetin alpha |

## Expansion opportunities with ongoing studies in anemia associated with 1L TD MF, 1L NTD MDS, and alpha-thalassemia[1]

1. Asia-only study

# Phase 3 INDEPENDENCE 1L TD anemia in MF trial design[1]

**Key Eligibility Criteria:**

- MPN-associated MF
- Stable dose JAK2 inhibitor
- Transfusion dependent

**Stratification:**

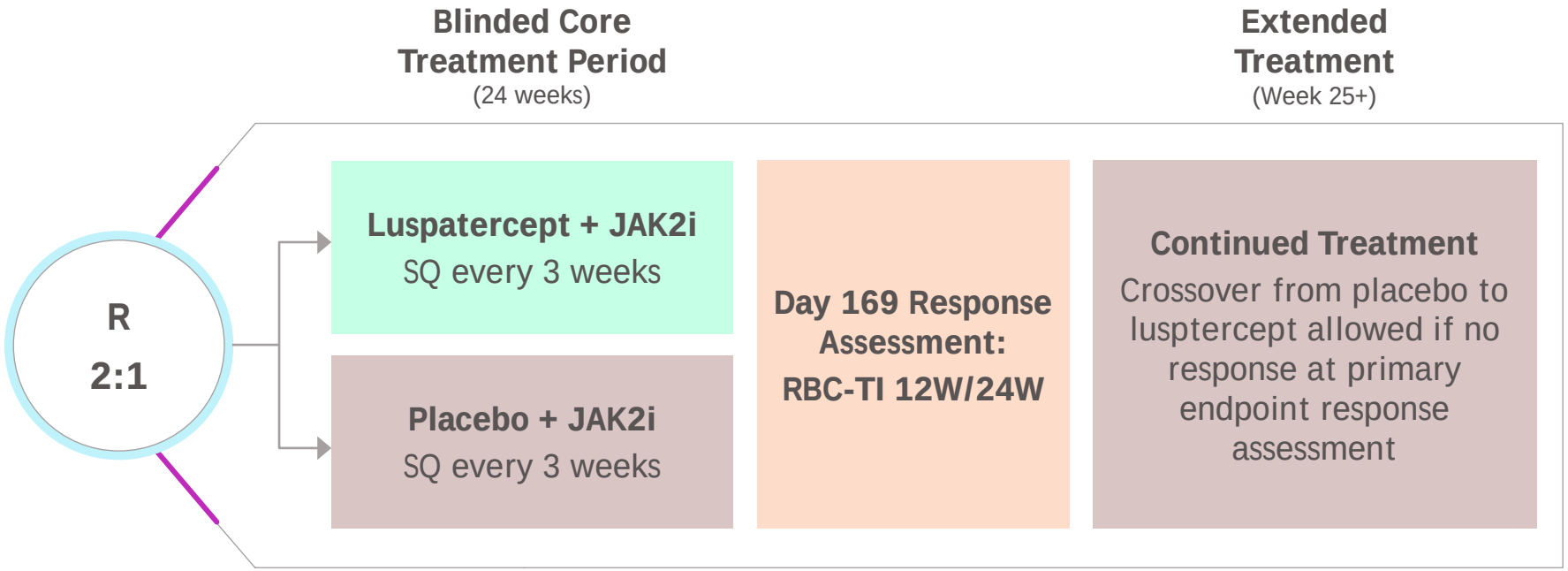
- BL RBC transfusion burden
- DIPSS (intermediate vs. high)

**Primary Endpoint:**

- RBC transfusion independence for ≥12 weeks

**Key Secondary Endpoint:**

- RBC transfusion independence for ≥16 weeks




**Expected data readout 2025**

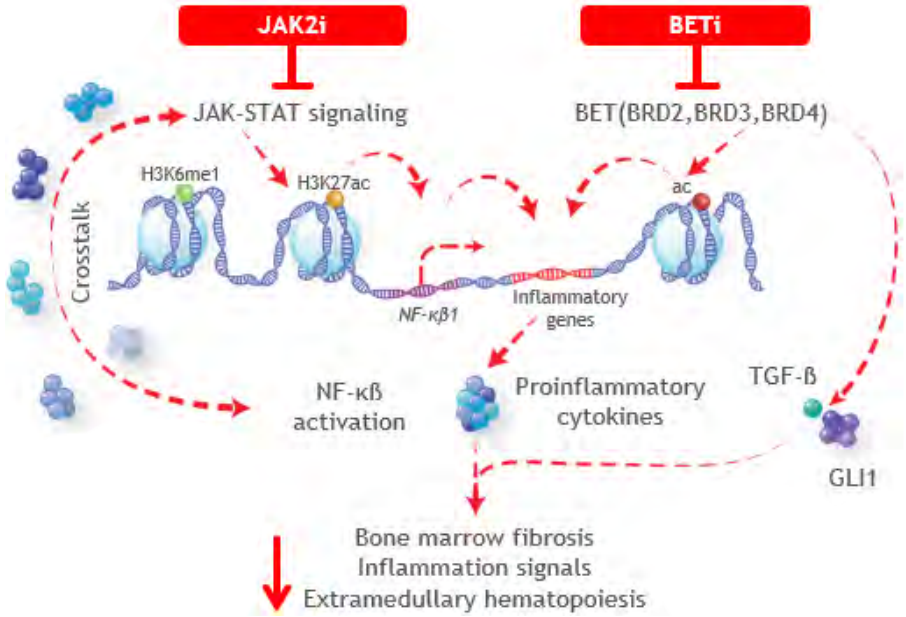


1. NCT04717414

# BMS-986158: Potential-best in-class BET inhibitor with broad applicability

## BETi Mechanism of Action

**Unmet need in MF remains for new treatments which lead to strong & durable spleen volume reduction, symptom improvement, and extended survival**




**BET Inhibitors alone and in combination with JAK inhibitors have shown clinical benefit in patients with MF[1]**

## BETi: Phase 1/2 study ongoing in MF[2]

| Dose Escalation Phase | Dose Expansion Phase |
|---|---|
| 1L MF (rux-naïve)<br>BMS-158 + ruxolitinib 15 mg BID | 1L MF (rux-naïve)<br>BMS-158 RP2D + ruxolitinib 10 mg BID |
| | 1L MF (add-on to rux)<br>BMS-158 RP2D + ruxolitinib previously tolerated dose |
| 2L MF (rux-exposed)<br>BMS-158 + fedratinib 400 mg QD | 2L MF (rux-exposed)<br>BMS-158 RP2D + fedratinib 400 mg QD |
| | 2L MF (rux-exposed)<br>BMS-158 RP2D monotherapy |

- **Primary Endpoint**: Safety, tolerability, MTD and/or RP2D
- **Key Secondary Endpoint**: Preliminary efficacy based on SVR

**Proof-of-concept data anticipated in 2024**



1. Mascarenhas J, et al. Blood 2019; 134(suppl 1):670. 2. NCT04817007

# Breyanzi provides transformational benefits to patients

| Before Breyanzi infusion | One month after Breyanzi infusion |
|---|---|

Follicular Lymphoma Patient from TRANSCEND-FL[1]

1. Images used with investigator permission from TRANSCEND-FL

# Best-in-class CAR T across the broadest array of B-cell malignancies

**01**

- Best-in-class CAR T with the broadest label in 2L+ LBCL
- Differentiated efficacy & safety profile

**02**

- TRANSCEND-CLL: First & only pivotal trial in high-risk R/R CLL/SLL
- Demonstrated deep and durable responses

**03**

- Potential best-in-disease in R/R FL
- Unprecedented data in additional lymphoma types including R/R MCL

**LBCL** Large B-Cell Lymphoma

**MCL** Mantle Cell Lymphoma

**CLL/SLL** Chronic Lymphocytic Leukemia/ Small Lymphocytic Lymphoma

**FL** Follicular Lymphoma

**MZL** Marginal Zone Lymphoma

**Aggressive** ← → **Indolent**

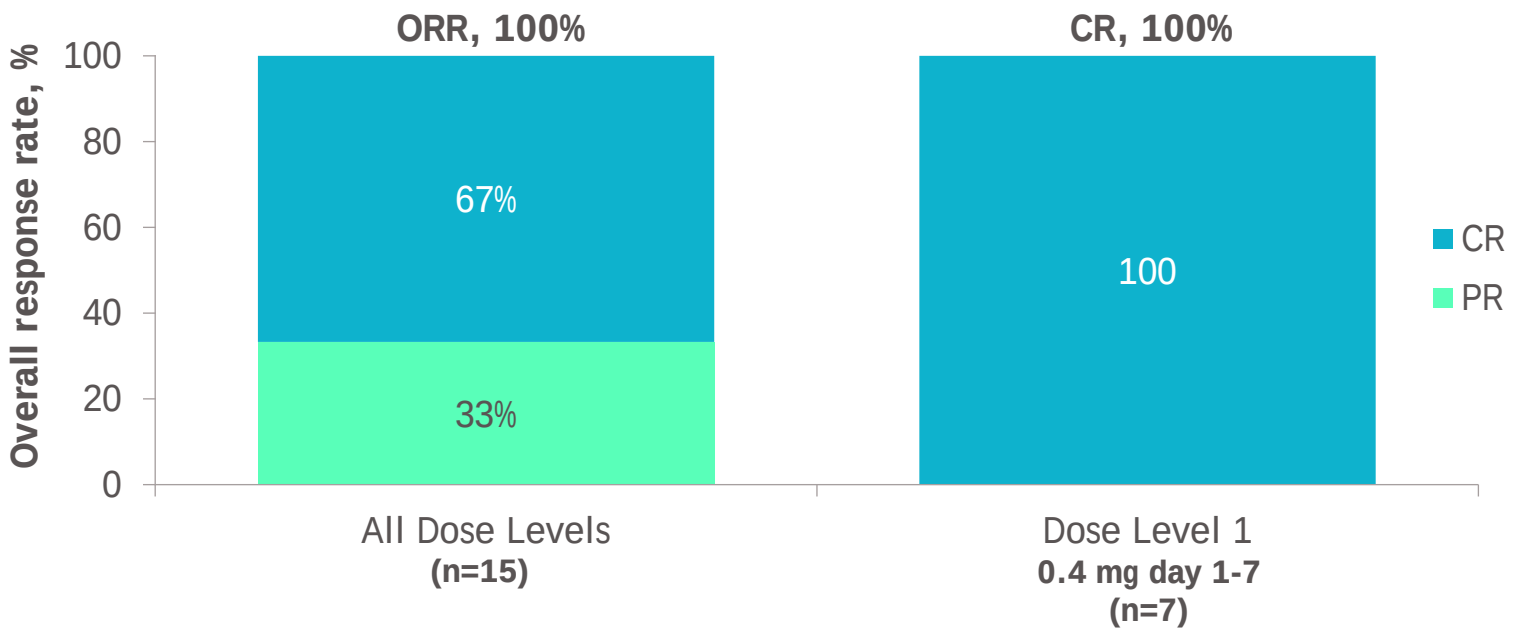
Rapidly progressive but responsive to chemotherapy and often curable

Slowly progressive and responsive to therapy but not typically curable with standard approaches

# Expanding Targeted Protein Degradation into lymphoma

**Unmet Need in 1L LBCL:** High-risk disease defined based on the IPI, where R-CHOP leads to cure in less patients

## High response rates seen with golcadomide + R-CHOP in 1L DLBCL[1]




## Manageable Safety Profile[1]

- No new safety signals were observed with golcadomide monotherapy
- Golcadomide was safely combined with rituximab, with no DLTs observed
- Golcadomide has good combinability with R-CHOP, with manageable safety profile

**Plan to initiate 1L LBCL registrational trial in 2024**

**Data anticipated 2027+**

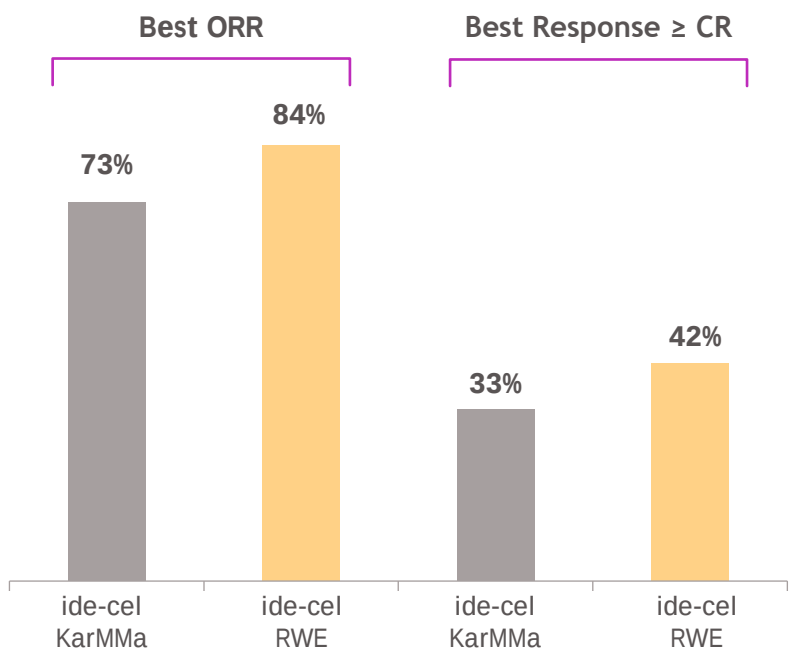
1. Munoz J, et al. ICML 2023 (poster #438).

# Moving into earlier lines of therapy in multiple myeloma

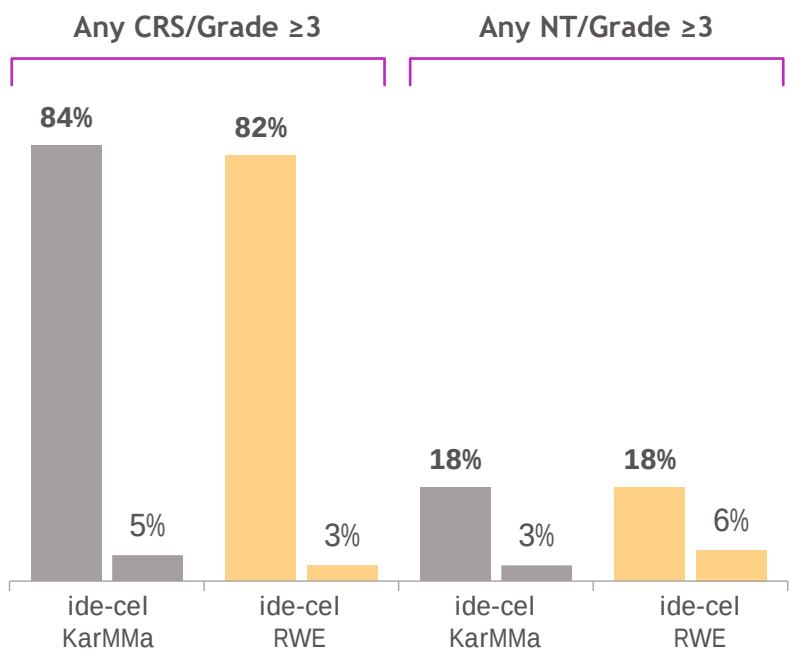
| Today | Near-Term | Future |
|---|---|---|
| Abecma™ (idecabtagene vicleucel) SUSPENSION FOR IV INFUSION | **Moving into a triple-class exposed population** | **Phase 3, KarMMa-9 study initiating** |
| 5L+ MM with differentiated real-world evidence | KarMMa-3 is currently under review in U.S., EU, and Japan | Expansion to NDMM with inadequate response to transplant |

# Confidence in Abecma's competitive profile further reinforced by real world evidence

## R/R MM Efficacy Outcomes[1]




## R/R MM Safety Outcomes[1]




ide-cel KarMMa (Phase 2 cohort), n=128 | ide-cel RWE, n=159

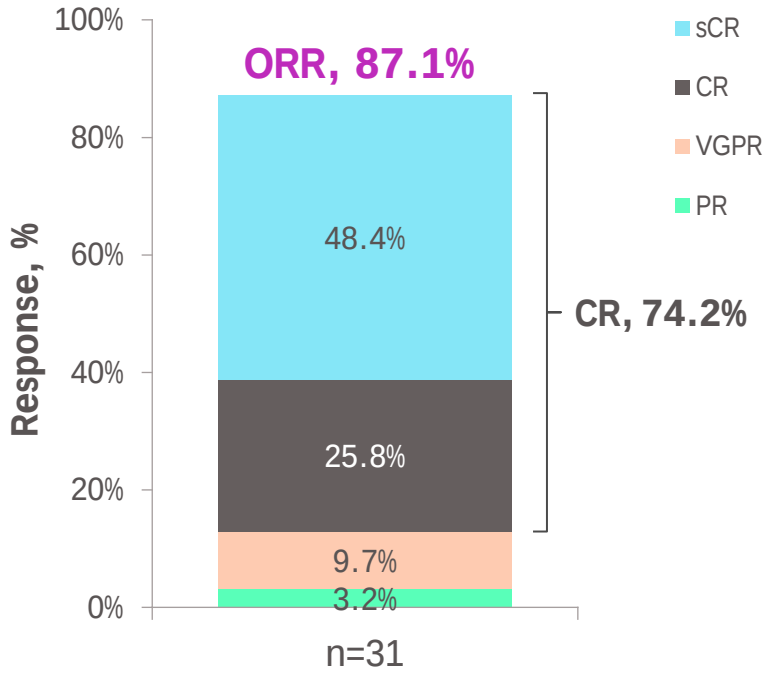
- Predictable safety profile well understood
- Real world data confirms the efficacy profile in a real world population
- Strong manufacturing reliability confirmed: 94% success rate
- Data supports CAR T before other BCMA-targeted therapies in the real world[2]



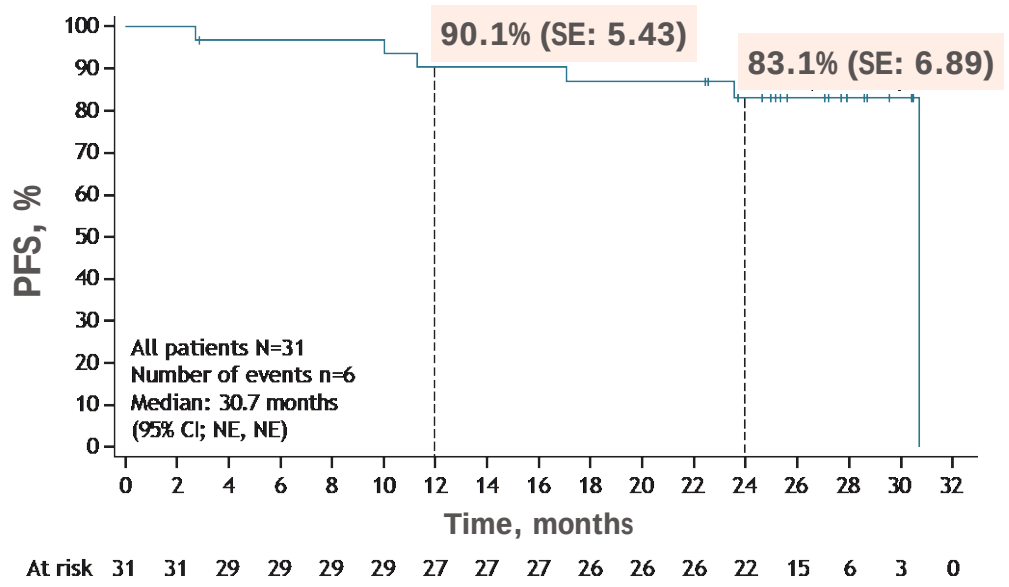
1. Hansen DK, et al. *J Clin Oncol*. 2023;41:2087-97. 2. Ferreri CJ, et al. *Blood Cancer J.* 2023;13:117. Including antibody drug conjugate, bispecific antibody, or BCMA CAR T on clinical trial

# KarMMa-2[1]: Strong data supports advancing Abecma into Phase 3 KarMMa-9 study

## Overall Response Rate




## Progression-Free Survival




## Safety

| Grade ≥3 | n=31 |
|---|---|
| CRS | 0 |
| iiNT | 3.2% |
| Infections | 12.9% |

Manageable tolerability profile with low rates of Gr≥3 NT and infections and no Gr≥3 CRS

**KarMMa-2 Cohort 2c studied Abecma in patients with clinical high-risk MM due to inadequate response (<VGPR) to frontline ASCT**



1. Dhodapkar M, et al. ASH 2022 [Presentation #3314].

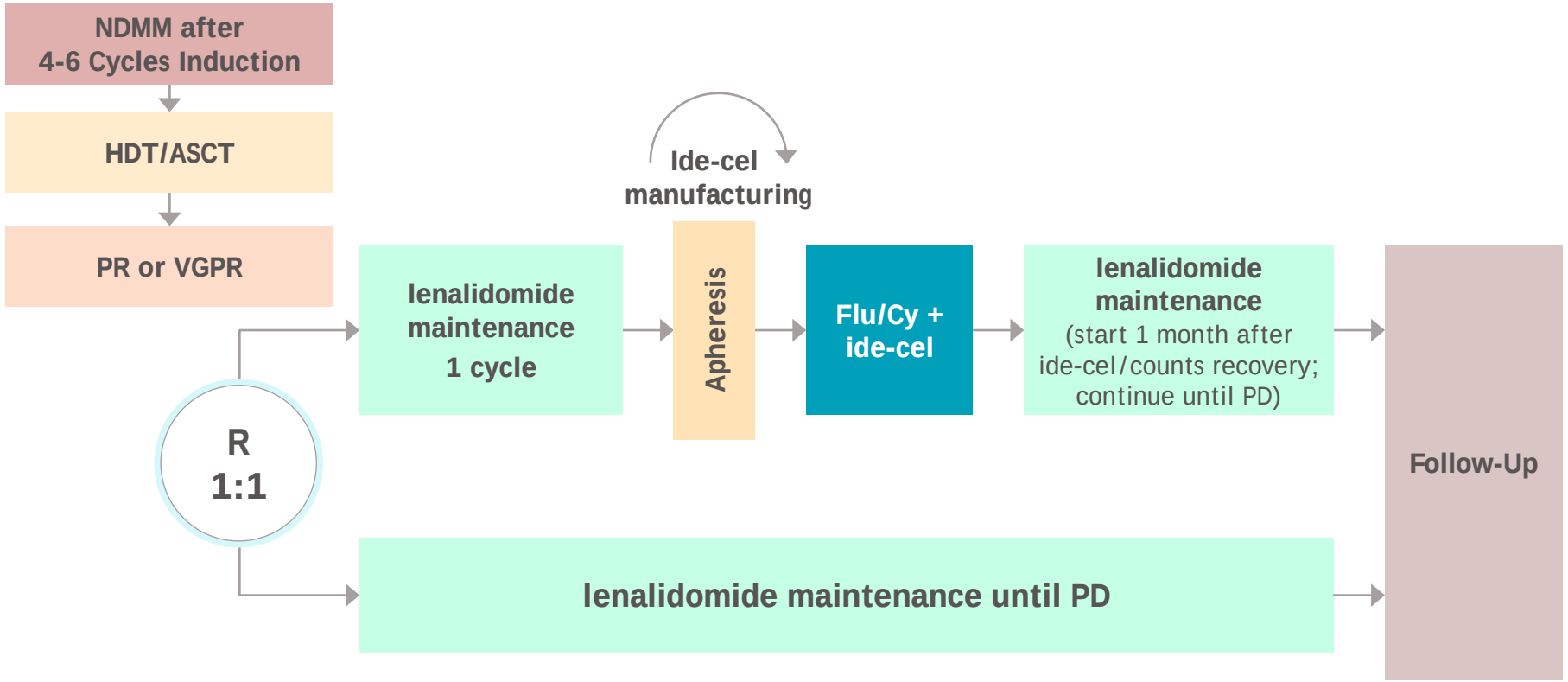
# Pivotal KarMMa-9 in patients with sub-optimal response post-ASCT

**Inclusion Criteria:**
- Adult patients with PR or VGPR to ASCT

**Primary Endpoint:**
- PFS

**Key Secondary Endpoint:**
- OS

**Stratification Factors:**
- R-ISS III at initial diagnosis
- Anti-CD38 induction
- VGPR vs PR

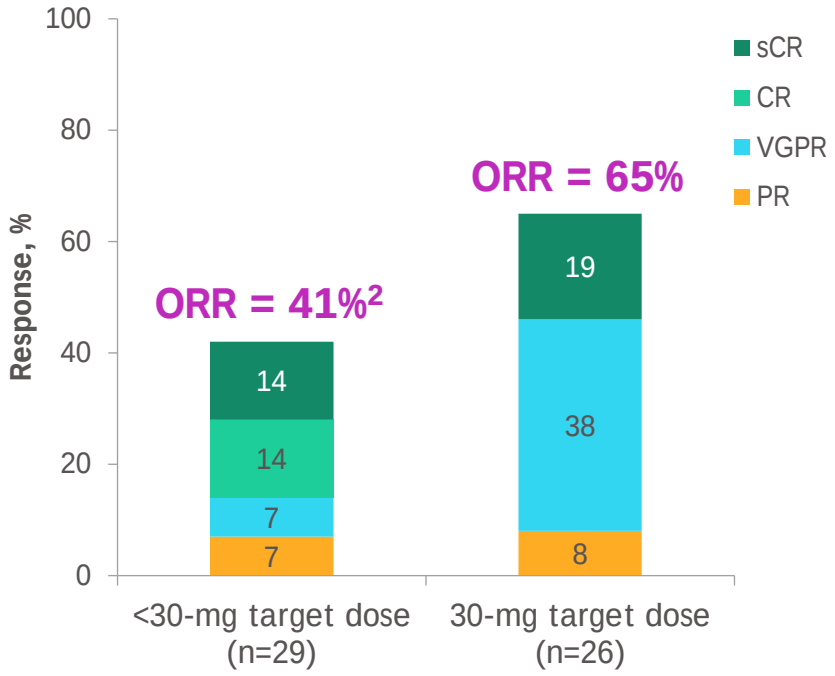



**Pivotal KarMMa-9 study initiating**

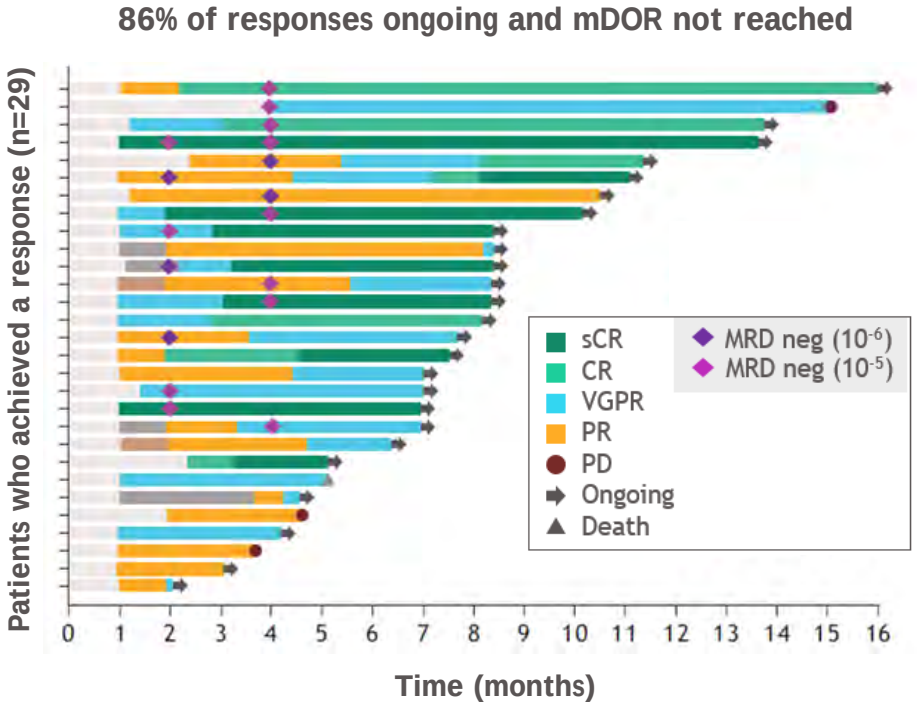
**Data anticipated in 2027**

# Alnuctamab demonstrates deep and durable responses in RRMM

## Overall Response Rate: Efficacy supports the optimal Phase 3 dose[1]




## Deep and durable responses with clinically important MRD negativity[1]




## Safety[1]

| Grade ≥3 | n=73 |
|---|---|
| CRS | 0 |
| ICANS | 0 |
| Infections | 10% |
| Hematologic: | |
| • Neutropenia | 42% |
| • Anemia | 25% |
| • Thrombocytopenia | 14% |

**Responses deepened over time, with CRS limited to low-grade, short-lived events (median duration 2 days)**


1. Wong SW, et al. EHA 2023 [Poster #P883]. 2. Values do not add to 41% due to rounding.

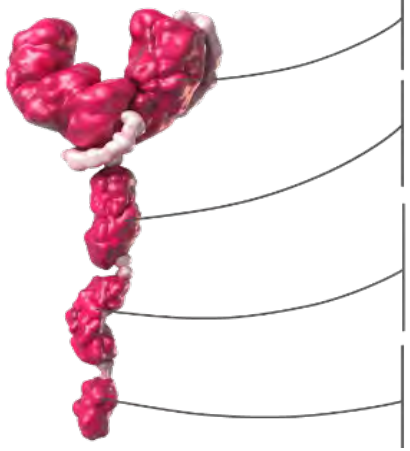
# Aggressive development plan to move into earlier lines and leverage proprietary combinations

| RRMM 1-3 prior lines | RRMM ≥3 prior lines (dose escalation) | RRMM ≥3 prior lines (dose escalation) |
|---|---|---|
| *alnuctamab monotherapy vs Investigator's Choice SOC* | *alnuctamab + GPRC5D CAR T* | *alnuctamab + mezigdomide* |
| • Phase 3, placebo-controlled randomized study<br>• Anti-CD38 mAb & lenalidomide exposed and BCMA-targeting therapy naïve | • Phase 1b, dose escalation and dose optimization study<br>• Dose escalation: Triple class exposed; prior BCMA or GPRC5D therapies allowed | • Phase 1b, dose escalation and dose optimization study<br>• Dose escalation: Anti-CD38 mAb exposed or naïve |

**Initiating Phase 3 trial in 2024**

# GPRC5D CAR T has differentiated MoA/construct, addressing unmet need in post-BCMA treated population

**GPRC5D-targeted CAR construct**



- Anti-GPRC5D domain[1]
- Hinge and transmembrane domain[1]
- 4-1BB[1,2]
- CD3-zeta[1,2]

- Critical need for new targets as the number of post-BCMA treated patients increases[3]
- GPRC5D is a clinically validated receptor highly expressed on MM cells with limited expression in other tissues and shows great potential for treatment of advanced MM[1]
- Overexpression of GPRC5D is associated with poor disease prognosis[1]

## Matching modality to mechanism

| TCE | CAR T |
|---|---|
| Repeated administration | One-time infusion |

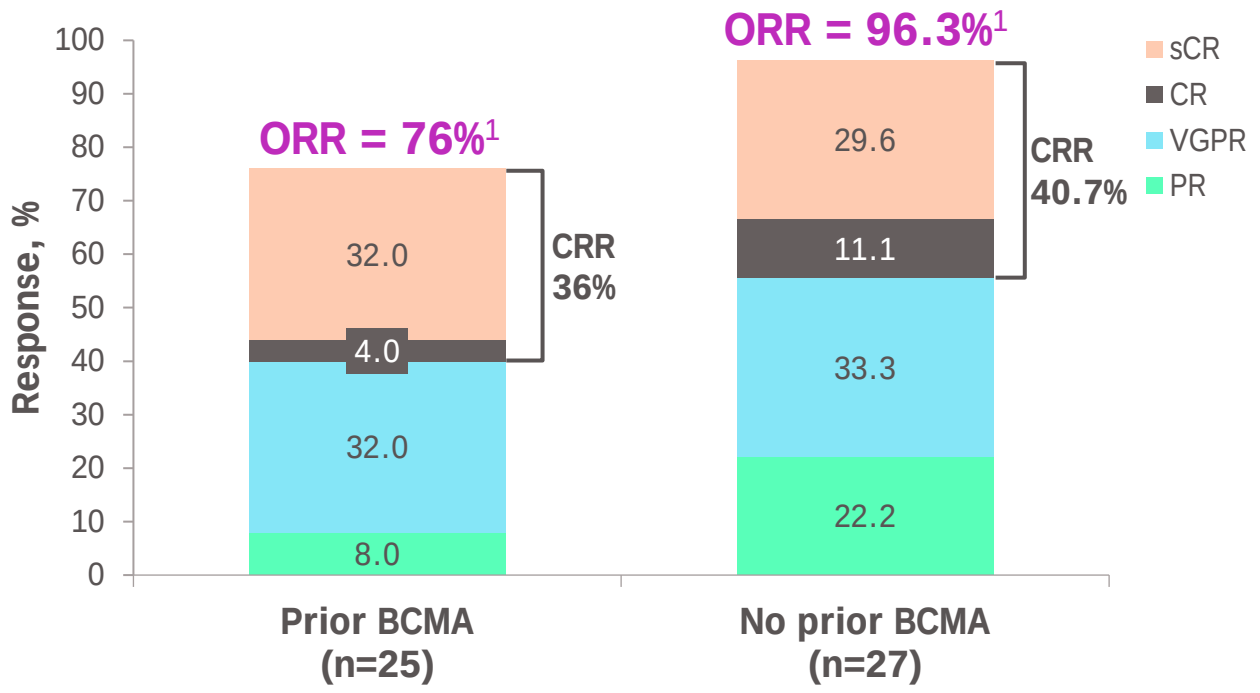
**Hypothesis:**

Deliver strong anti-tumor efficacy with a better on-target/off-tumor tolerability profile

Though CAR T manufacturing and scalability is bespoke, therapy is a one-time infusion leading to significant efficacy and a manageable tolerability profile[4]

1. Smith EL, et al. *Science Transl Med*. 2019;11:eaau7746. 2. Song D-G, et al. *Cancer Res*. 2011;71:4617-4627. 3. Mailankody S, et al. *N Engl J Med*. 2022;387:1196-1206. 4. Bal S, et al. EHA 2023 [Presentation #S193].

# GPRC5D CAR T in post-BCMA patients shows compelling efficacy and differentiated safety




| Patients with prior BCMA-targeted therapy[1], n (%) | n = 25 |
|---|---|
| **CAR T-cell therapy** (cilta-cel, ide-cel, orva-cel, ALLO 715, others not specified) | 19 (76) |
| **Non-CAR T-cell therapy** (ADC, belantamab mafodotin, TCE) | 8 (32) |

| | All treated patients (n = 67) | |
|---|---|---|
| **On-target/off-tumor TRAEs, n (%)** | Any grade | Grade ≥ 3 |
| Skin | 14 (20.9) | 0 (0) |
| Dysgeusia/taste disorder | 12 (17.9) | 0 (0) |
| Nails | 6 (9.0) | 0 (0) |
| Dysphagia | 1 (1.5) | 0 (0) |
| **Neurotoxicity, n (%)** | | |
| ICANS-type neurotoxicity | 7 (10.4) | 2 (3.0) |
| Dizziness | 7 (10.4) | 1 (1.5) |
| Headache | 7 (10.4) | 0 |
| Ataxia | 2 (3.0) | 0 |
| Neurotoxicity | 2 (3.0) | 0 |
| Gait disturbance | 1 (1.5) | 0 |
| Dysarthria | 1 (1.5) | 0 |
| **Non-hematologic, n (%)** | | |
| CRS | 58 (86.6) | 3 (4.5) |

**GPRC5D CAR T on-target/off-tumor safety profile differentiated from bispecifics with lower rates of any grade events, and no Grade ≥ 3 events**

1. Bal S, et al. EHA 2023 [Presentation #S193].

# Registrational trial to be initiated 1H 2024

**Quadruple class exposed**

*IMiD, PI, anti-CD38, anti-BCMA*

**Explore novel combinations**

*CELMoDs or anti-BCMA TCE*

**Expand in 2L+ vs SOC**

*Key segment in RRMM*

| | | |
|---|---|---|
| Demonstrate high ORR and DOR in a high-need population | Expand development with combinations in earlier disease setting | Potential to explore head-to-head study vs standard therapies |
| **Registrational Trial** | **Additional studies planned in 2024+** | |

# Two multiple myeloma CELMoDs are in registrational trials

## iberdomide

- Synergistic in vitro activity with anti-CD38 mAb[1]
- Properties enable combinability, enhanced anti-MM activity, and favorable tolerability
- Potential to establish iberdomide in combination with anti-CD38 mAb in earlier lines

## mezigdomide

- Highly potent, optimized for rapid and maximal degradation of target proteins
- Induces tumor cell death and responses needed to regain control in advanced disease
- Potential to establish mezigdomide-PI triplet combination in later lines, post-lenalidomide and anti-CD38 mAb

| Asset (indication) | Phase 1 | Phase 2 | Phase 3 | Projected Data Readout |
|---|---|---|---|---|
| mezigdomide (RRMM 2-4L) | SUCCESSOR-1[2] | | | 2026 |
| mezigdomide (RRMM 2L+) | SUCCESSOR-2[3] | | | 2026 |
| iberdomide (RRMM 2-3L) | EXCALIBER-RRMM[4] | | | 2026 |
| iberdomide (post-SCT maintenance) | EXCALIBER-MAINTENANCE[5] | | | 2029 |

1. Hansen JD, et al. *J Med Chem*. 2020 Jul 9;63(13):6648-6676. 2. NCT05519085; 3. NCT05552976; 4. NCT04975997; 5. NCT05827016

# Extending leadership in multiple myeloma: Opportunity to help patients across their treatment journey

**Patient Segments**

| Newly Diagnosed Multiple Myeloma (1L) | | Early Relapse and Refractory Multiple Myeloma (2L-4L) | | Late Relapse and Refractory Myeloma (5L+) | |
|---|---|---|---|---|---|
| Post-SCT consolidation | Post-SCT maintenance | anti-CD38 Sensitive/Naïve | Post anti-CD38 | Triple class exposed | Quadruple class exposed |

**BMS Assets**

| | | | | | |
|---|---|---|---|---|---|
| Abecma (idecabtagene vicleucel) | iberdomide | iberdomide | Abecma (idecabtagene vicleucel) | Abecma (idecabtagene vicleucel) | GPRC5D CAR T |
| | | mezigdomide | mezigdomide | | |
| | | alnuctumab | alnuctumab | | |
| | | GPRC5D CAR T | GPRC5D CAR T | | |

Planned
Ongoing
Approved

# Broadening leadership across malignant and benign Hematology

**Reblozyl:**

- Recent FDA approval in 1L MDS-associated anemia with a broad label
- 1L TD Myelofibrosis associated anemia Phase 3 ongoing

**Numerous assets to extend leadership in Multiple Myeloma:**

- **Abecma** is under regulatory review in the triple class exposed population; Phase 3 initiating in patients with sub-optimal response post-ASCT
- **GPRC5D CAR T** as a potential first-in-class CAR T with registrational program initiating next year
- **iberdomide & mezigdomide** registrational data expected in 2026
- **alnuctamab** initiating Phase 3 next year

**Strengthening breadth of leadership across leukemias, lymphomas, and benign hematology:**

- Best-in-class **Breyanzi** expanding across the broadest array of B-cell malignancies
- **Golcadomide** moving into Phase 3 in 1L LBCL
- **BET inhibitor (BMS-986158)** as a potential new option for patients with Myelofibrosis

**Addressing hematologic diseases impacting 4M+[1] patients**



1. 2023 estimates from Decision Resource Group & BMS Internal Analysis across indications in the U.S. & EU5

# Oncology

# Addressing high unmet medical need in Oncology

| Asset | Approved | Registrational† | Exploratory/PoC Studies† |
|---|---|---|---|
| OPDIVO[1] (nivolumab) | 26 approvals across 11 tumors | 9 ongoing trials | - |
| Opdualag™ | 1L melanoma | • Adj. melanoma<br>• 2L/3L+ MSS CRC<br>• 1L melanoma SC | • 1L/2L+ HCC<br>• 1L NSCLC |
| repotrectinib[2] | - | 1L ROS1+ NSCLC | NTRK Pan Tumor |
| subcutaneous nivolumab[1] | - | U.S. – All Q2W & Q4W indications (bridging from 2L RCC) | - |
| AR LDD | - | - | 2L+ mCRPC |
| DGK Inhibitor | - | - | Solid tumors |
| farletuzumab ecteribulin | - | - | NSCLC & ovarian |
| TIGIT Bispecific | - | - | NSCLC & gastric |



1. U.S. Regulatory path opens up indications with Q2W and Q4W dose including melanoma, CRC, HCC, 2L NSCLC, UC, ESCC, & Gastric 2. U.S. PDUFA: November 27, 2023
† ongoing or initiating 2023/2024

# Continuing to grow Opdivo / Dual IO

**26** OPDIVO approvals

**10** YERVOY approvals

**11** tumors

## Metastatic Setting

| Tumor/Trial | Status | Tumor/Trial | Status |
|---|---|---|---|
| Subcutaneous nivolumab<br>CM-67T | 2023<br>Readout | MSI-H CRC<br>CM-8HW<br>Opdivo + Yervoy | 2025<br>Readout |
| 1L MIUC<br>CM-901<br>Opdivo + Yervoy vs SOC chemo | 2024<br>Readout | 1L HCC<br>CM-9DW<br>Opdivo + Yervoy vs sorafenib / lenvima | 2025<br>Readout |

## Early-Stage Setting

| Tumor/Trial | Status | Tumor/Trial | Status |
|---|---|---|---|
| NSCLC (Peri-Adj)<br>CM-77T<br>Neo-adj Opdivo + chemo followed by Adj Opdivo vs chemo | 2024<br>Readout | NSCLC Stage 3 (Unresectable)<br>CM-73L<br>Opdivo mono, O+Y vs Imfinzi | 2025<br>Readout |
| NSCLC (Adj)<br>ANVIL<br>Opdivo vs Observation | 2024<br>Readout | HCC (Adj)<br>CM-9DX<br>Opdivo vs Placebo | 2025<br>Readout |
| MIBC (Peri-Adj)<br>CA017-078<br>Opdivo + chemo vs chemo | 2024<br>Readout | | |

# SC administration has clear benefits for patients, HCPs, and healthcare systems

## HCPs and Healthcare System

- **Logistical**: Complex scheduling demands due to higher patient volume[1]
- **Resource utilization**: Overlapping duties for staff, inefficient patient to nurse ratios[1,2]

- **Reduces chair time (~5 min)**[3]
- **Allows rapid drug delivery**[3]
- **Reduces staff needed for administration**[3,4]
- **Improves healthcare resource utilization**[3,4]

## Patients

- **Time burden**: Inconvenience[5], opportunity cost/income loss[6]
- **Emotional burden**: Loss of normality long-term survivorship and 'chronic care'[7]

- **Reduces time in clinic**[3]
- **Improves scheduling and administration**[8,9,10]
- **Improves patient QOL**[3,4,11]

[1]Lopez-Vivanco G. *Clin Transl Oncol*. 2017;19(12):1454-1461 ; [2]Huang YL, et al. *Journal of Oncology Practice*. 2018; 14(2):e82-e91; [3]O'Shaughnessy J, et al. *Eur J Cancer*. 2021;152:223-232; [4]DuMond B, et al. *J Oncol Pharm Prac*. 2021;27(5):1214-1221. [5]De Cock E, et al. *Cancer Med*. 2016;5(3):389-397. [6]Alzehr A, et al. *Support Care Cancer*. 2022;30(8):6385-6404. [7]Kim Y, Given BA. *Cancer*. 2008;112(11 Suppl):2556-2568. [8]Harvey MJ, et al. *Plos One*. 2022;17(1):e0261336. [9]Jonaitis L, et al. *BMC Proc*. 2021;15(suppl 17):25. [10]Schreiber S, et al. *Adv Ther*. 2022;39:2342-2364. [11]Dent S, et al. *Curr Oncol*. 2019;26(1):e70-e80.

# Subcutaneous nivolumab: Opportunity for a near-term launch potentially benefitting patients into the early 2030s

## Checkmate 67T[1]: Phase 3 study

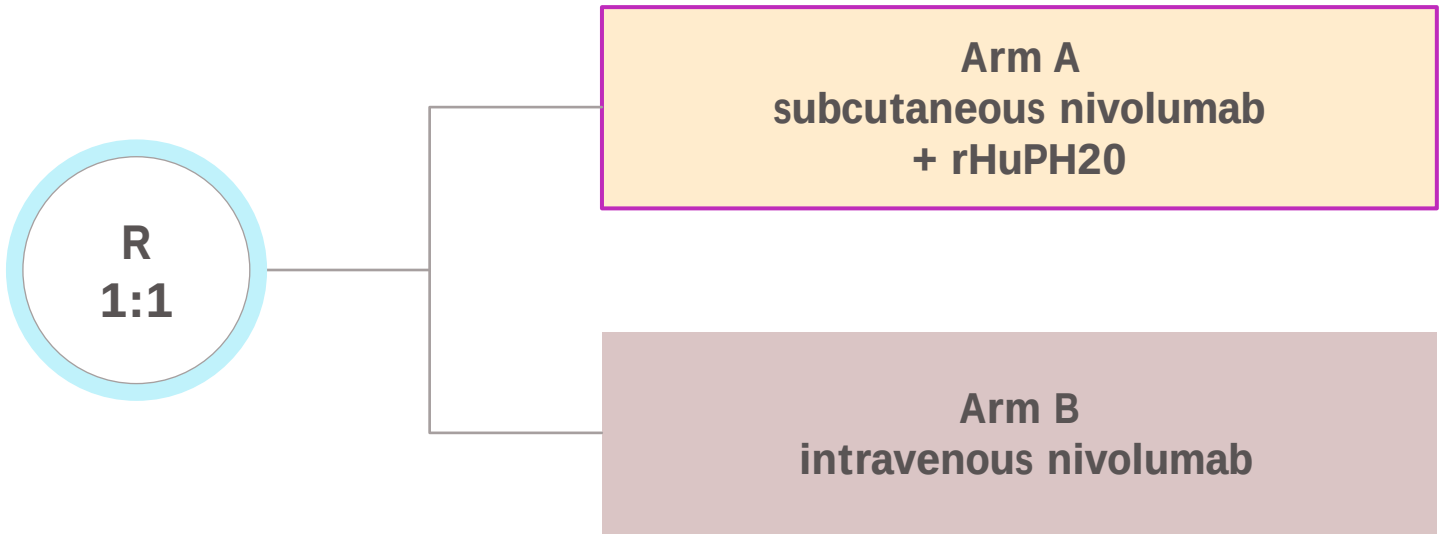
- Patients with advanced or metastatic ccRCC who have received prior systemic therapy

## Primary Endpoint:

- Time-averaged serum concentration over 28 days (Cavgd28)
- Trough serum concentration at steady-state (Cmin)

## Key Secondary Endpoint:

- ORR




**Data expected later this year & launch anticipated in 2024/2025**

U.S. Regulatory path opens up indications with Q2W and Q4W dose[2]

Indications encompass majority of Opdivo 2022 net sales in the U.S.

1. NCT04810078; 2. Supported with data from Checkmate-8KX

# Next-generation IO medicine with significant potential to benefit patients into the next decade

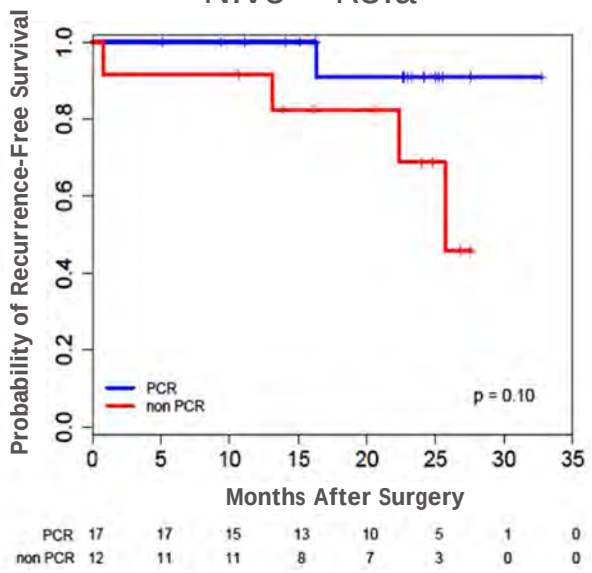
| Today | Near-Term | Future |
|---|---|---|
| Opdualag™ | 2/3L+ MSS Colorectal Cancer & Adjuvant melanoma | Non-Small Cell Lung Cancer & Hepatocellular Carcinoma |
| Strong launch supporting rapidly expanding dual IO option for 1L melanoma patients | Phase 3 trials ongoing | Phase 2 trials underway to inform path forward |

# Adjuvant Melanoma: High conviction indication with potential to benefit patients before disease spreads

## Clear evidence of neo-adjuvant activity with relatlimab and nivolumab complements proven benefit in metastatic setting

| | pCR, n/N (%) |
|---|---|
| **Nivo[1]** | 3/12 (25) |
| **Nivo+Rela[2]** | 17/30 (57) |

Nivo + Rela[2]




- Combination relatlimab and nivolumab yields a high pCR rate and durable clinical benefit in resectable melanoma patients
- Favorable safety profile

Opdualag: Potential therapy option for ~21K adjuvant patients vs ~13K 1L metastatic patients in the U.S.[3]

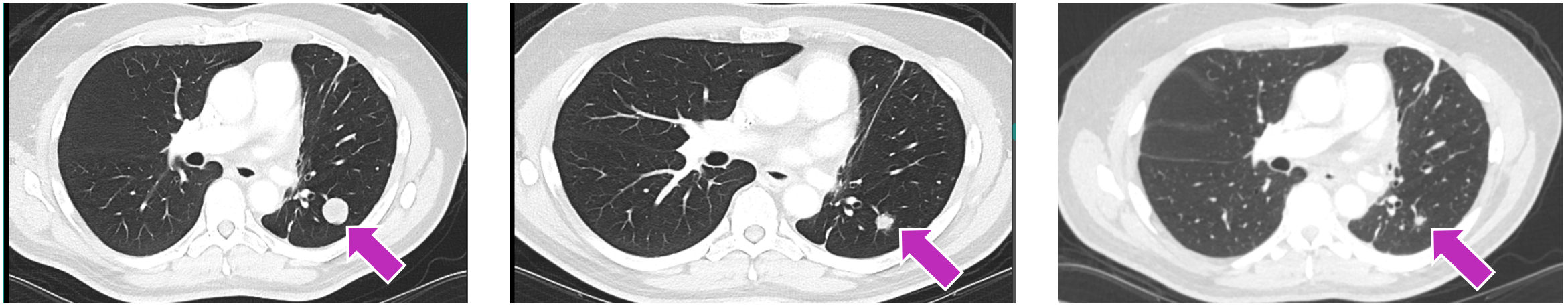
RELATIVITY-098 Phase 3 ongoing: **Data expected in 2026**



1. Amaria, et al. *Nat Med* 2018; 24: 1649-54; 2. Amaria, et al. *Nat Med* 2022; 611: 155-60; 3. Decision Resources Group, BMS Internal Analysis

# MSS CRC: Combination benefit where PD-1 alone has not shown activity

**Patient with recurrent, metastatic MSS rectal adenocarcinoma after 3 lines of treatment in the metastatic setting**



Baseline | 3 months into treatment | 9 months into treatment

**Partial Response (-38% decrease) in target lesions for 11+ months**

RELATIVITY-123 **Phase 3 ongoing:**

Opdualag vs regorafenib or TAS-102 in later lines of metastatic colorectal cancer

**Data expected in 2025**



Images courtesy of Dr. Eric Christenson and Dr. Dung Le, Johns Hopkins University

# Ongoing Phase 2 studies to inform Phase 3 program

Opdualag™

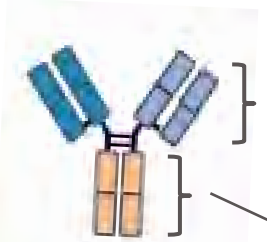
| 1L HCC[1] | 2L + HCC (Post TKI)[2] | 1L Stage IV NSCLC[3] |
|---|---|---|
| nivolumab + relatlimab + bevacizumab<br>vs<br>nivolumab + bevacizumab | nivolumab + relatlimab<br>vs<br>nivolumab | nivolumab + relatlimab + chemo<br>vs<br>nivolumab + chemo |

**Key takeaways from Phase 2 studies inform and potentially de-risk the Phase 3 program**

1. NCT05337137; 2. NCT04567615; 3. NCT04623775

# BMS-986442: Differentiated TIGIT & CD96 bispecific antibody in Oncology

## Antagonizes TIGIT & CD96 binding to CD155



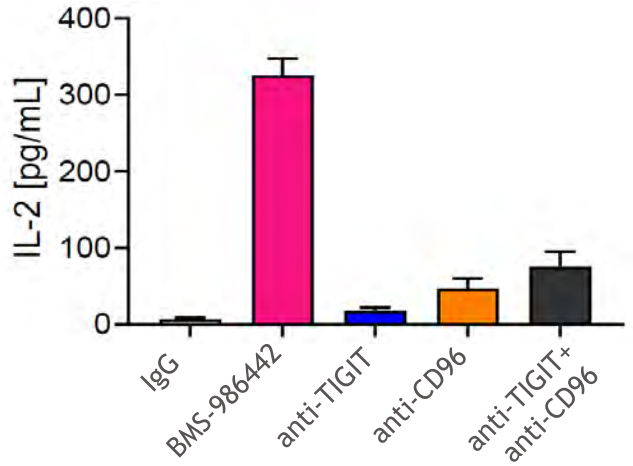
BMS-986442

- Dual TIGIT & CD96 antagonist
- Fc selected to enhance tumor-reactive T cell responses

## Program Overview: Licensed from Agenus

- Phase 1 single-agent trial complete
- Phase 1/2: Evaluating combinations (e.g., PD-1 ± chemotherapy) in dose escalation with data anticipated next year
- Positive data enables clinical development acceleration
- Initial tumors of interest: NSCLC & Gastric cancer

## MoA: Drives T & NK cell anti-tumor immunity




**APC: T-Cell Response**
(Bispecific vs monospecific(s))

- CD96 & TIGIT are complementary targets in the same pathway & negatively regulate T & NK cell function in the tumor microenvironment[1,2,3]
- BMS-986442 potentially enhances the quality & magnitude of T cell responses (vs TIGIT & CD96 monospecific antibodies) through dual inhibition on APC or tumor cells[4]

1. Waight JD, et al., *Cancer Cell*. 2018. 2. Worboys JD, et al., *Nat. Communi*. 2023. 3. Banta KL, et al., *Immunity* 2023. 4. Dougall WC, et al., Immunol. Rev. 2017

# Dual DGKα/ζ inhibitor builds on our depth in Oncology to potentially deliver a transformational oral CPI

## Transformational potential

First-in-class, oral therapy as a T cell checkpoint inhibitor (CPI) as monotherapy or in combination with approved CPIs

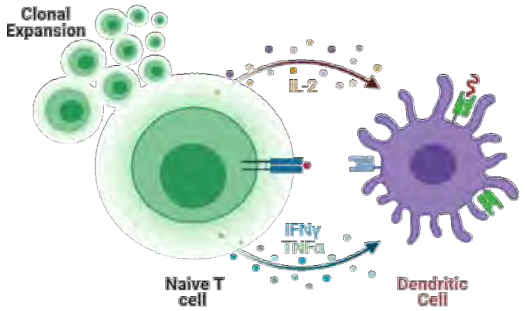
## Matching modality to mechanism

A *dual* alpha/zeta inhibitor sensitizes CPI-resistant pre-clinical models through CD8 priming and clonal expansion, leading to tumor cell killing in combination with anti-PD1 and anti-CTLA4 therapies

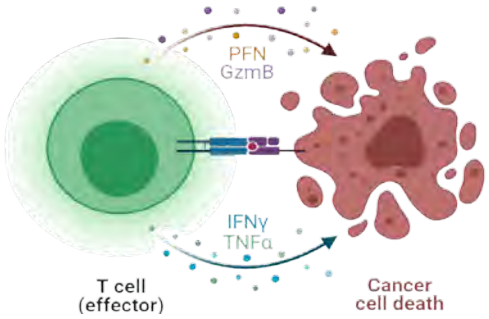
## Causal human biology

Translational insights from IO-refractory patients demonstrates mechanisms of resistance related to low antigenicity, lack of co-stimulation, and T cell anergy.

*Amplifies CD8 priming & clonal expansion*




*Amplifies CD8 killing of tumor cells*




## Path to clinical proof-of-concept

| IO Resistance Mechanisms | DGKi |
|---|---|
| Low TMB | ✓ |
| Low antigenicity | ✓ |
| Low MHCI | ✓ |
| Lack of co-stimulation | ✓ |
| T cell anergy | ✓ |

# Effective & tolerable treatment options needed in metastatic castrate resistant prostate cancer (mCRPC)

## High unmet need remains in prostate cancer:

- Expected U.S. mortality is ~35K[1] men in 2023
- 5-year OS[1] decreases from >97% to ~32.5% in the localized vs metastatic setting

### Current SOC - NHT[2]

- AR is a key driver of prostate cancer and AR-targeted therapies remain current SoC
- Traditional AR antagonists (e.g., enzalutamide) inhibit AR in a reversible manner
- This AR inhibition is overcome by upregulation of wildtype (WT) or mutation of AR in cancer cells, leading to resistance:
  - AR WT amplification (~50%)[3]
  - AR mutations (~15-20%)[3]
- Post-NHT progression, limited options for patients (e.g., chemo)

### AR LDD

- AR LDD induces irreversible AR degradation in a catalytic manner leading to deeper, more potent AR inhibition
- Potentially paradigm-shifting MoA overcomes resistance mechanisms to NHT including AR WT amplification and mutations
  - Preclinical models demonstrated activity in both settings
- Potential to improve efficacy, safety, & tolerability in the post-NHT setting



1. SEER 2023; 2. NHT: e.g., enzalutamide and abiraterone; 3. Robinson, et al., 2015, *Cell* 161:1215; Abida et al., 2019, *PNAS* 116:11428.

# AR LDD phase 1 design in 1L & 2L mCRPC

**Open label[1]: Assess the safety, tolerability and preliminary efficacy**

**Key eligibility criteria**

- Histologically or cytologically confirmed adenocarcinoma of the prostate
- Progressed on ADT and ≥ 1 prior secondary hormonal therapy approved for CRPC
- ECOG performance status (PS) 0 or 1
- Dose escalation/Dose expansion

**Primary endpoint**

- Safety and tolerability

**Key secondary endpoints:**

- Confirmed Prostate Specific Antigen (PSA) decline of ≥ 50% from baseline (PSA50)
- Objective soft tissue response (CR or PR), DoR, rPFS, PSA PFS

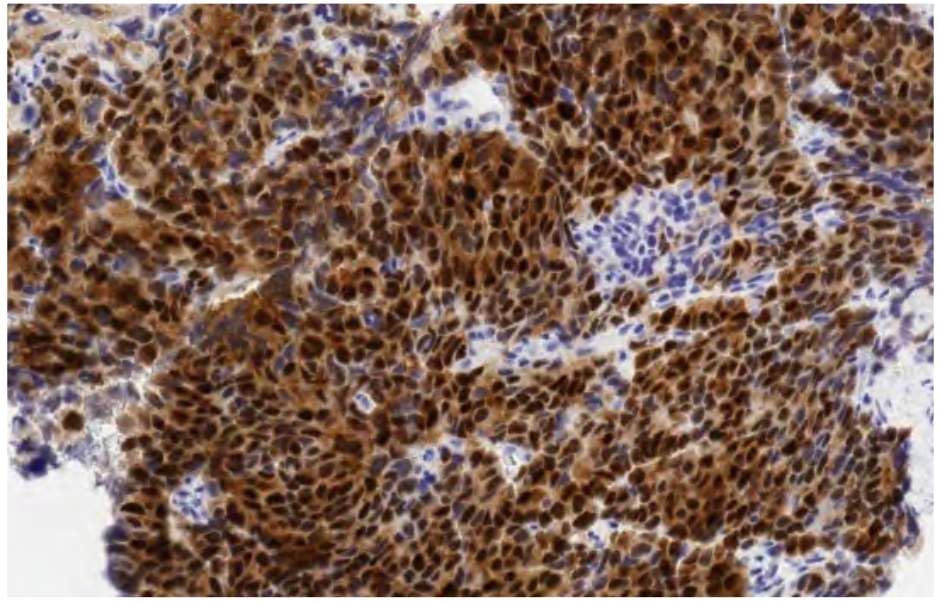
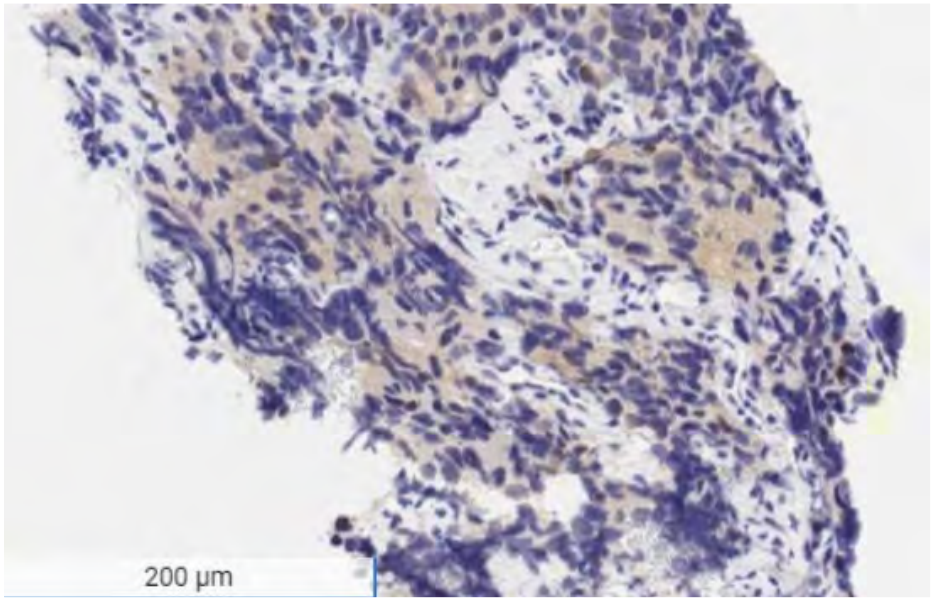
**Part A**
Dose escalation

**Part B**
Dose expansion
to optimize RP2D

**Data anticipated in 2024**

1. NCT04428788

# AR LDD demonstrates on target AR degradation in tumor biopsy

| | Screening | On Treatment |
|---|---|---|
| Patient Example |  |  |
| | AR protein is highly expressed in tumor cells | AR protein levels degraded with AR LDD after one cycle |

Source: Images from BMS internal database

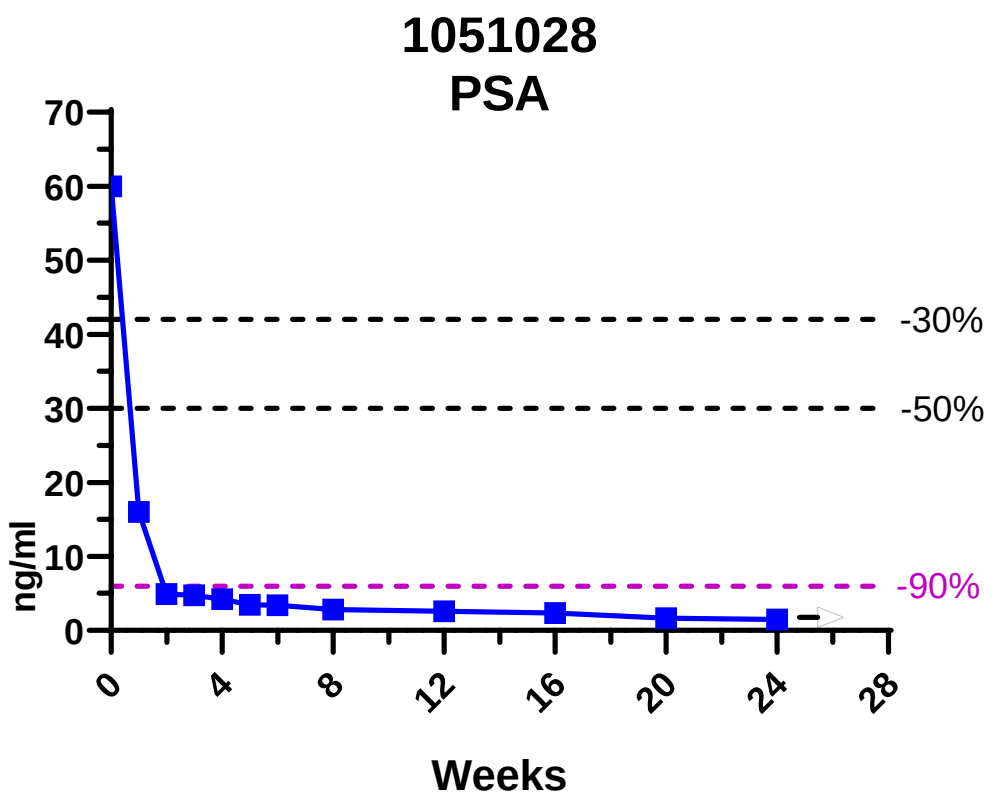
# Confirmation of mechanism of action of AR LDD from first-in-human study

69 yr old male with mCRPC since 2022[1]

Prior Tx: ADT, enzalutamide, avelumab + talazoparib

Pt entered study with AR amplification, BRCA2 mutation, rising PSA and progressive soft tissue disease

Treated with AR LDD; responded rapidly with PSA90*




*Observed PSA decreases in this patient only serve to illustrate MoA and are not intended to represent expected outcomes

1. Patient case from BMS internal database

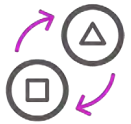
# AR LDD: Opportunity to move into pivotal studies in next 18 months

## Next Steps

Phase 1 data across mutant/wildtype subgroups to be presented at a medical congress in 2024

Discuss pivotal study options with health authorities

Consider expanding into hormone sensitive indications



Explore novel combinations to potentially enhance efficacy or synergy

# Extending IO leadership while diversifying beyond IO

## Extending leadership in IO

- **Subcutaneous nivolumab**: Potential to benefit patients into early 2030s with data anticipated this year
- **Opdualag:** 3rd approved IO agent; Approved in 1L melanoma; Phase 3 studies in adjuvant melanoma and mCRC ongoing
  - Ongoing Phase 2 studies in HCC and lung to inform Phase 3 program

## Select next-gen IO

- **BMS-986442**: Differentiated TIGIT bispecific antibody targeting both TIGIT and CD96
- **DGK inhibitor**: Potential transformational, oral dual inhibitor in solid tumors

## Diversifying beyond IO

- **AR LDD**: Significant opportunity in mCRPC with data expected early next year; initiating pivotal trial in next 18 months
- **repotrectinib**: Potential best-in-class, next generation ROS1/NTRK inhibitor; PDUFA November 27, 2023

**Addressing oncologic diseases impacting 1.2M+[1] patients**

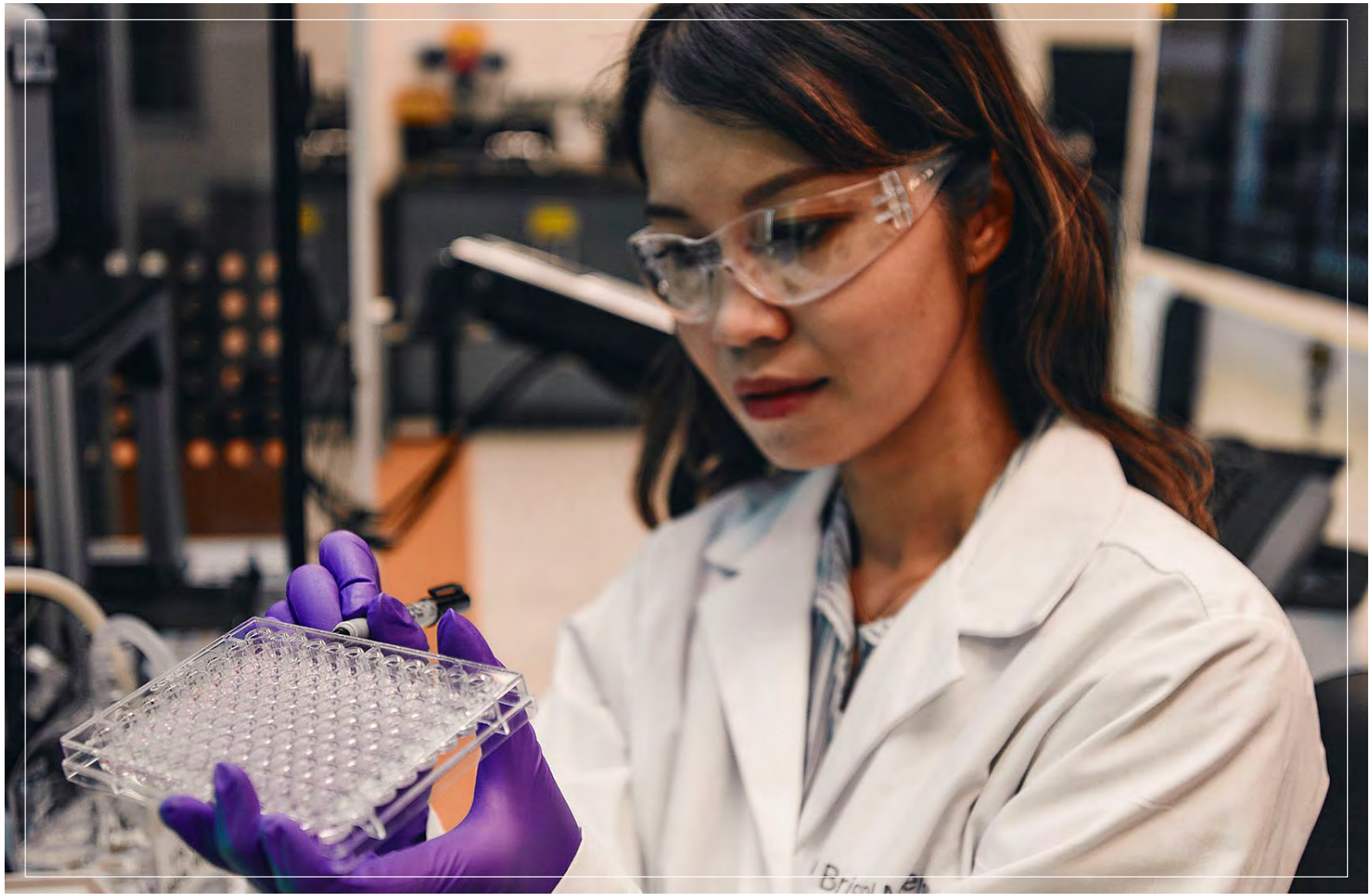


1. 2023 estimates from Decision Resource Group & BMS Internal Analysis across indications in the U.S. & EU5

# Program will reconvene following a short break

 (10 min)

# Cardiovascular



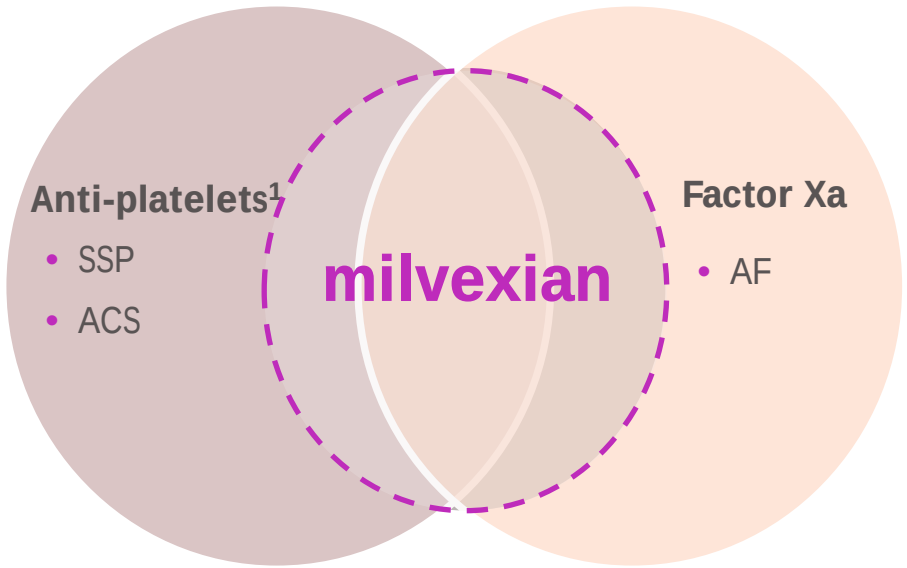
# Opportunity to develop medicines in important Cardiovascular indications

| Asset | Approved | Registrational† | Exploratory/PoC Studies† |
|---|---|---|---|
| CAMZYOS™ (mavacamten) 2.5, 5, 10, 15mg capsules | Obstructive Hypertrophic Cardiomyopathy | Non-obstructive Hypertrophic Cardiomyopathy | - |
| milvexian | - | • Secondary Stroke Prevention<br>• Acute Coronary Syndrome<br>• Atrial Fibrillation | - |
| MYK-224 | - | - | • Obstructive Hypertrophic Cardiomyopathy<br>• Heart Failure with preserved Ejection Fraction |
| danicamtiv | - | - | Dilated cardiomyopathy |

† ongoing or initiating 2023/2024

# Milvexian: Opportunity to expand anticoagulation beyond FXa to benefit millions of patients

## Opportunity to address multiple thrombotic conditions of high unmet need




## Target profile: Efficacy comparable or better to FXa with better bleeding profile

**~7.5M patients[2] in U.S. with thrombotic diseases need treatment**

Robust **phase 2** program has demonstrated a **differentiated anticoagulant profile**

**LIBREXIA program is the largest and most comprehensive phase 3** registrational program ongoing (SSP, ACS & AF)

U.S. FDA granted **Fast Track Designation** to **all 3 indications** ongoing in Phase 3 studies

1. Current standard of care for indication(s); 2. Decision Resource Group, BMS Internal Analysis

# Our framework reinforces confidence in milvexian as a next-generation anti-thrombotic

## Transformational potential

Oral anti-coagulant with a potential for comparable/better efficacy with reduced bleed risk to a broader range of patients

## Matching modality to mechanism

Milvexian has high **affinity** and **specificity** for FXIa, **high oral bioavailability** and demonstrates a wide therapeutic index in preclinical models of thrombosis

## Causal human biology

Congenital FXI-deficient patients:

- Lower risk for venous thromboembolism & ischemic strokes
- Spontaneous bleeding is uncommon

| Risk of CV events lower by[1] | | Risk of VTE lower by | |
|---|---|---|---|
| ▼ 48% | ▼ 43% | ▼ 61% | **No VTE events** |
| In patients with mild deficiency **HR 0.52** | In patients with moderate-to-severe deficiency **HR 0.57[1]** | In patients with mild deficiency **HR 0.39** | In patients with moderate-to-severe deficiency[1] |

## Path to clinical proof-of-concept

- Human genetic data
- Epidemiologic observations
- Pre-clinical models
- Phase 2 studies

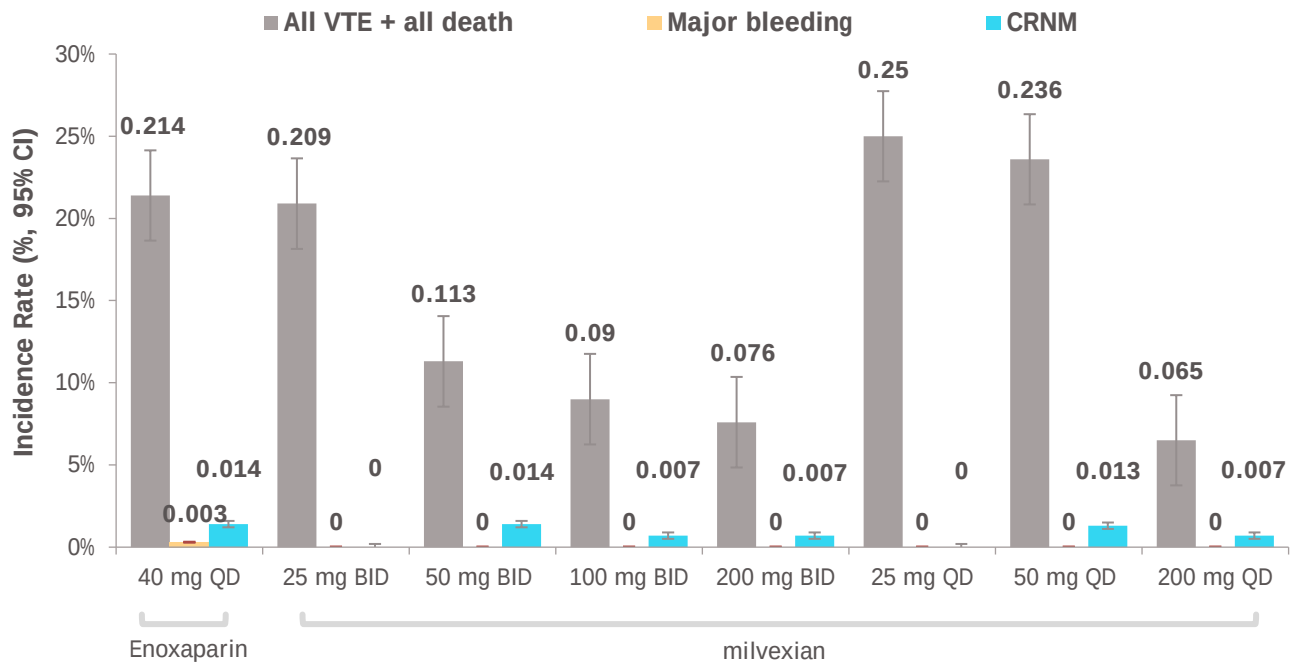


1. Preis M, et al. *Blood*. 2017; Mar;129(9):1210-1215.

# TKR study demonstrates a differentiated monotherapy profile: Supports moving into AF

## Monotherapy

### AXIOMATIC-TKR study[1]




### AXIOMATIC-TKR[1] Phase 2 data

**Efficacy** — Robust efficacy with superiority vs enoxaparin

**Safety** — No major bleeds observed in milvexian arms

**Dose Response** — Clear efficacy & no dose response in bleeding observed → distinct from existing anticoagulants

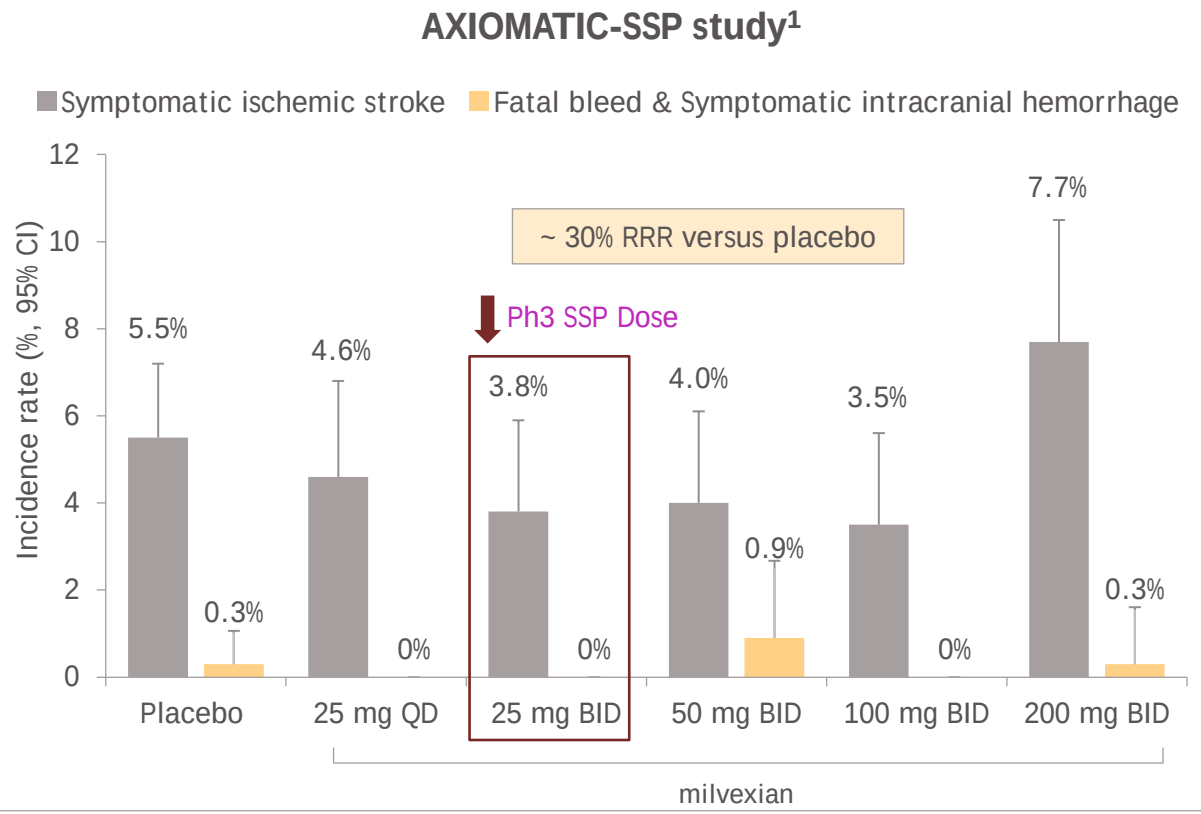
**Supports Phase 3 AF trial**

**Milvexian has potential to offer comparable/better efficacy with reduced bleed risk to a broader range of patients**

1. Weitz J, et al. *N Engl J Med.* 2021; 385:2161-2172.

# Data from the SSP Phase 2 study gives us confidence to move to Phase 3 in combination with anti-platelet treatments

## Combination Therapy




**Efficacy**

Clinically meaningful (~30%) reduction in ischemic stroke (primary endpoint for Phase 3 SSP) across several fold dose range

**Safety**

- No fatal bleeding
- No signal for increase in intracranial bleeds
- No apparent dose response in bleeding

**Dose Response**

- Dose response in ischemic stroke with early plateau at 25mg BID
- Phase 3 dose 25mg BID

**Phase 2 data supports Phase 3 studies in SSP and ACS**

1. Sharma et al, ESC 2022

# SSP data provides proof-of-concept in ACS

## Acute Coronary Syndrome Unmet Need

- Risk of recurrent CV events remains high despite dual antiplatelet therapy (5-10% annually)[1,2]
- Current treatments (antiplatelets & anticoagulants) decrease CV events, but increase risk of major bleeding
- 900K[3] patients diagnosed in the U.S.

## Scientific rationale for milvexian in ACS

Ischemic stroke and ACS share similar underlying pathophysiology and treatment

FXa on top of dual antiplatelet shows efficacy but with excess bleeding

In AXIOMATIC-SSP, **milvexian demonstrated efficacy** in reducing recurrent ischemic stroke with **no increase in severe bleeding** vs. placebo

**Phase 3 study in ACS underway**



1. Steg G, et al. *JAMA*. 2007. 2. Sorbets E, et al. *J Eur Heart J*. 2020. 3. Decision Resources Group, BMS Internal Analysis

# Confidence in profile supports three parallel Phase 3 trials in SSP, ACS, and AF

| Indication | Phase 1 | Phase 2 | Phase 3 | Projected Data Readout |
|---|---|---|---|---|
| Secondary Stroke Prevention | LIBREXIA-STROKE[1] (Dose: 25mg BID) | | | 2026 |
| Acute Coronary Syndrome | LIBREXIA-ACS[2] (Dose: 25mg BID) | | | 2026 |
| Atrial Fibrillation | LIBREXIA -AF[3] | | | 2027 |

The LIBREXIA Phase 3 studies represent the largest, most comprehensive program for a Factor XIa inhibitor

**U.S. FDA granted Fast Track designation to all 3 indications**

1. NCT05702034; 2. NCT05754957; 3. NCT05757869

# Expanding myosin inhibitor franchise in HCM and HFpEF

## Today

CAMZYOS™ (mavacamten) 2.5, 5, 10, 15mg capsules

Strong launch momentum enabling more oHCM patients to benefit from Camzyos

## Medium-Term

Expansion into nHCM & opportunity to expand diagnosis rates with Artificial Intelligence supported technology

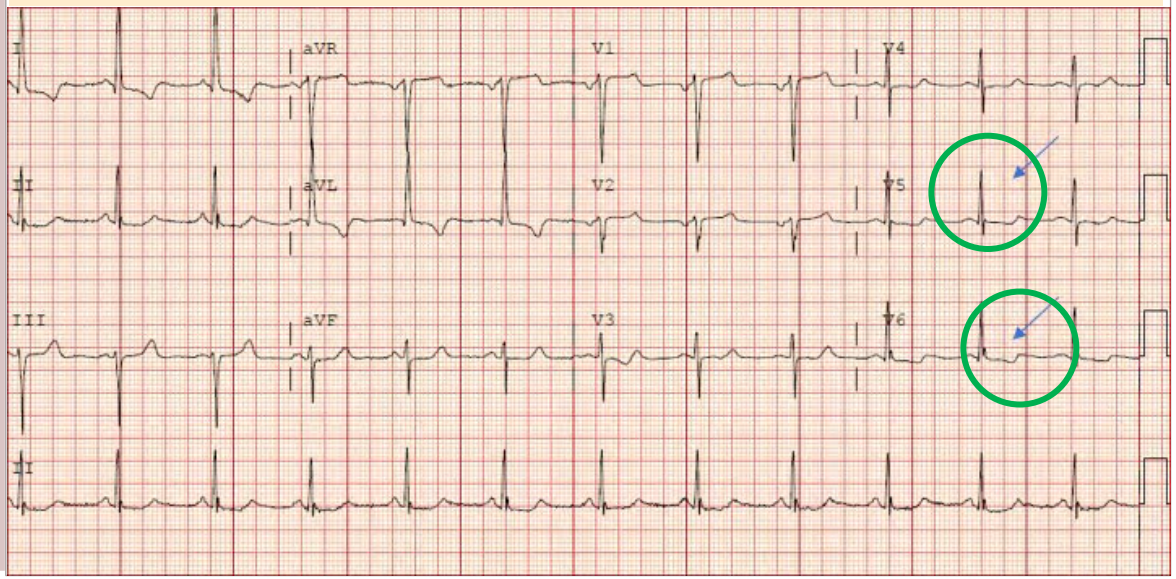
## Long-Term

Potential opportunity for myosin inhibitors in HFpEF

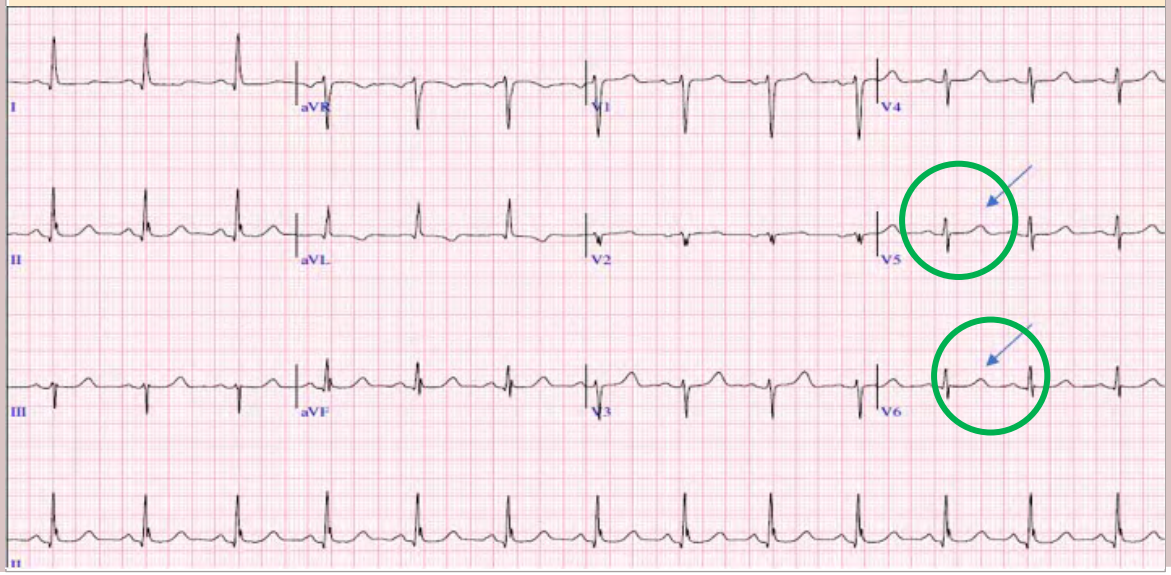
**Continued evolution of data suggests disease modifying ability of Camzyos**

# oHCM Patient Case (Electrocardiogram)

## Before Camzyos Treatment




## 6 Months of Camzyos Treatment



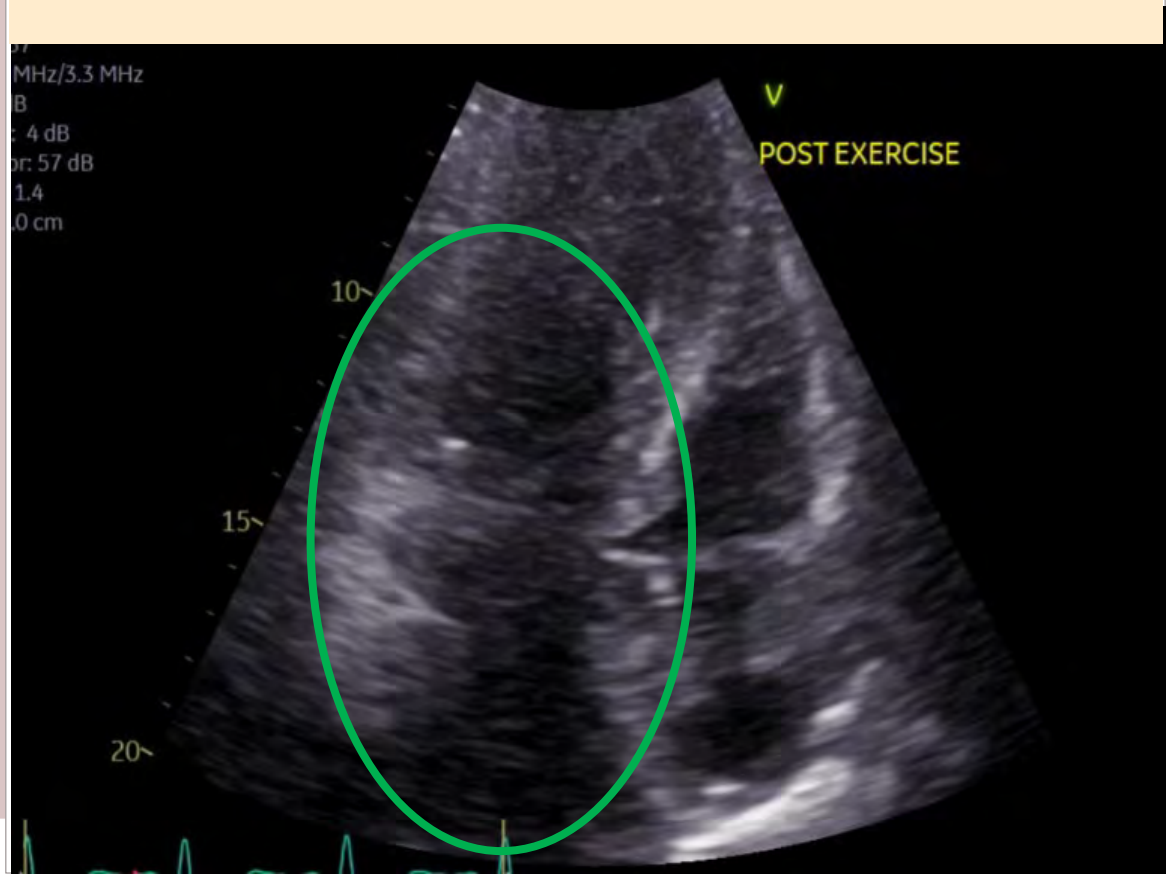

**Normalizing trend in the ECG after 6 months of treatment with Camzyos**



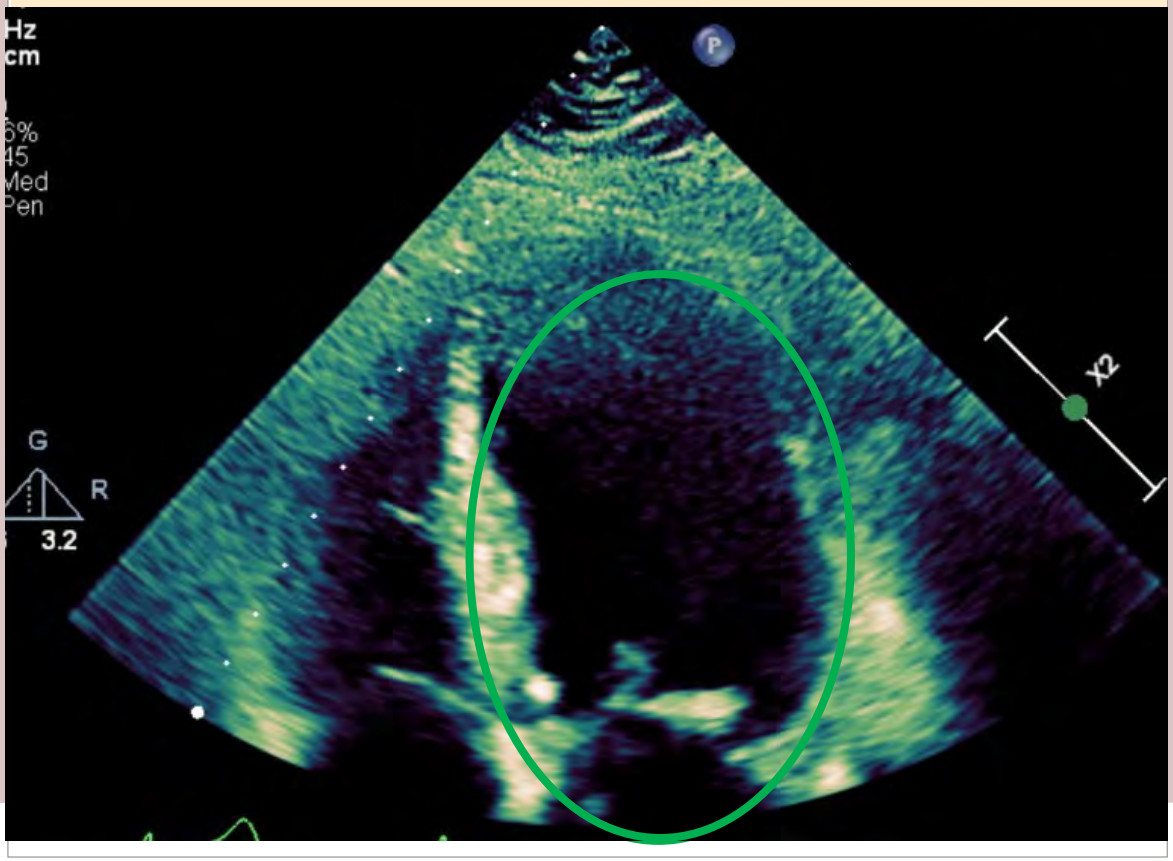
Source: Courtesy of Dr. Matt Martinez

# oHCM Patient Case (Echocardiogram)

## Before Camzyos Treatment




## 6 Months of Camzyos Treatment




Source: Courtesy of Dr. Matt Martinez

# Camzyos: Phase 3 trial in nHCM underway

ODYSSEY HCM

**Patients with symptomatic nHCM (NYHA Class II or III)**

**Key Inclusion:**

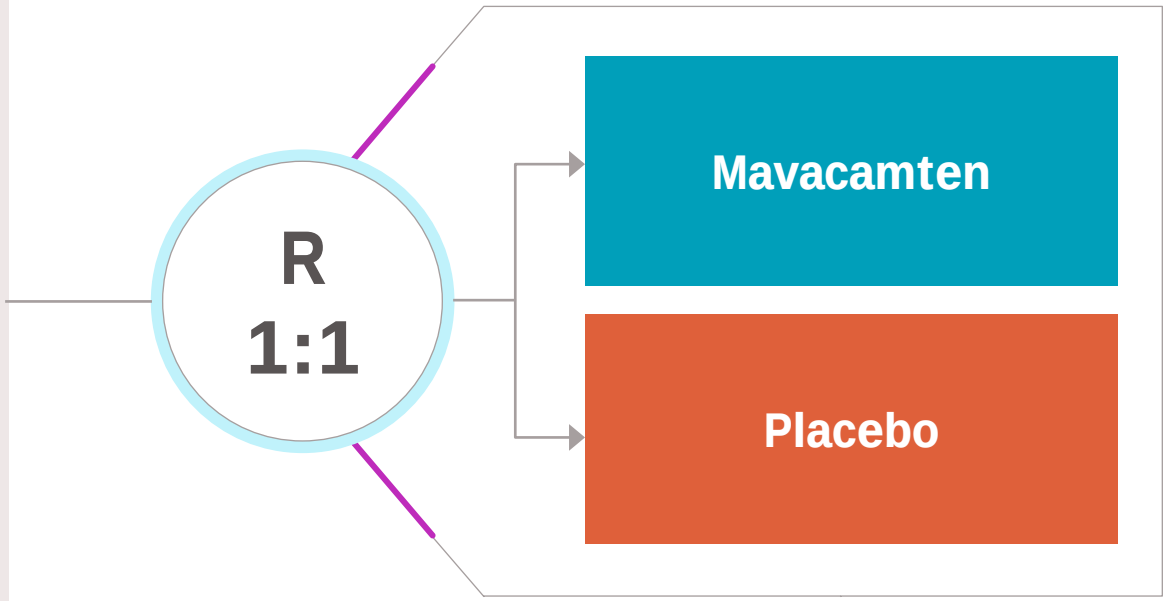
- Diagnosis of HCM per ACC/AHA and ESC guidelines
- Peak LVOT < 30 mmHg at rest / < 50 mm Hg with provocation
- NYHA Class II or III

**Key Exclusion:**

- Known infiltrative or storage disorder that mimics nHCM
- H/o unexplained syncope within 6 months prior to screening
- H/o SVT within 6 months prior to screening

**Assessment of Primary Endpoints at Week 48:**

- Exercise Capacity (pVO2)
- PRO (KCCQ)



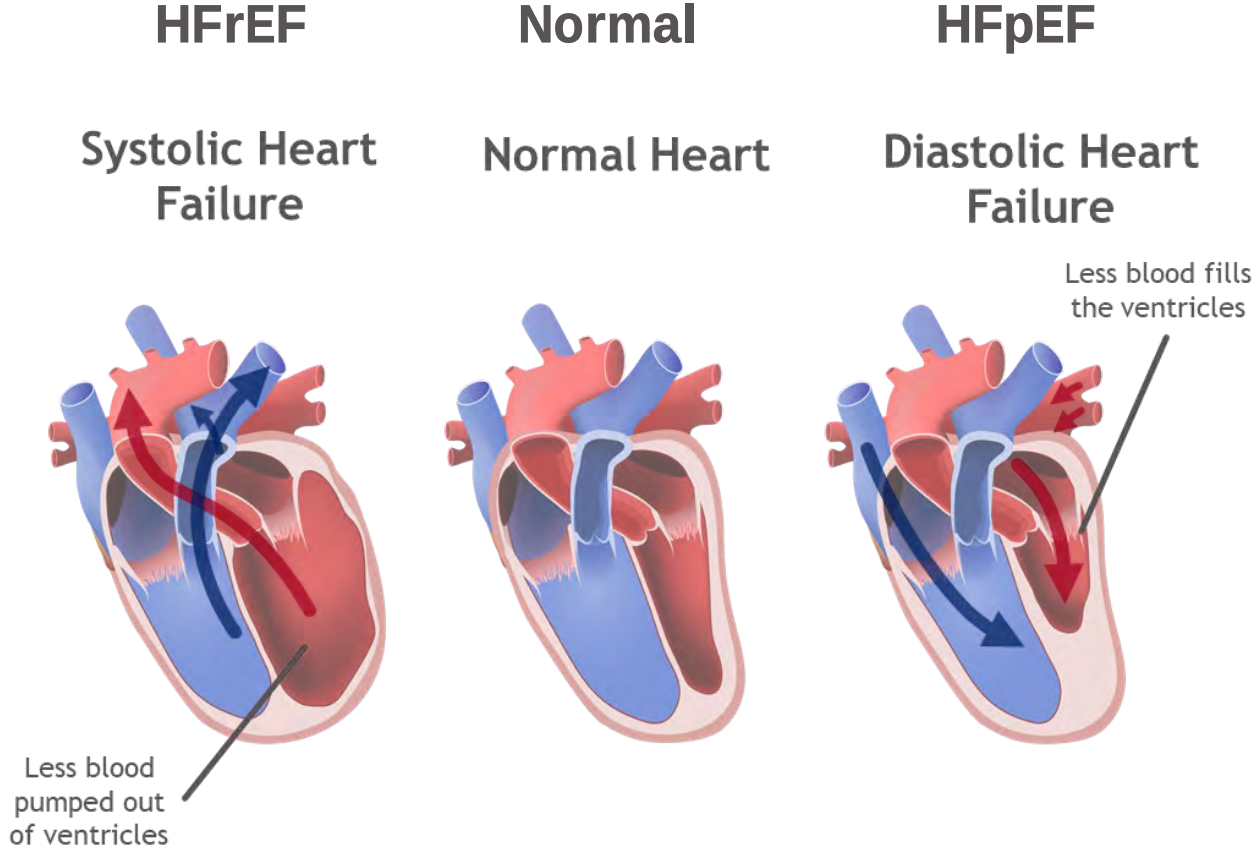

**Data expected in 2025**



1. NCT05582395

# Significant unmet need remains in HFpEF

- HF **affects ~6.8 million** individuals in the US[1]
- HF is **classified** by clinical signs & symptoms as well as the heart's ability to eject blood
- 50% of HF patient have HFpEF which is a **heterogenous disease** contributed to by several comorbidities and/or specific causes, e.g., cardiomyopathy[2]
- Patients with HFpEF typically present with dyspnea and evidence of congestion. There may be evidence of diastolic dysfunction, ventricular stiffening and hypertrophy






HFpEF, heart failure with preserved ejection fraction; SGLT-2i, sodium-glucose cotransporter-2 inhibitors.

1. Heidenreich PA et al. J Am Coll Cardiol. 2022
2. Solomon SD et al. NEJM. 2022

# Emerging data suggests a potential role for MYK-224 in HFpEF

## MYK-224 profile as a cardiac myosin inhibitor

- Pre-clinical animal models show similar exposure-response with mavacamten[1]
- MYK-224 oHCM Phase 2 MERCUTIO trial is ongoing to confirm exposure-response similarity in humans

## Role of cardiac myosin inhibitor in HFpEF

- Encouraging interim observations from mavacamten Phase 2a EMBARK suggests myosin inhibitor benefits in HFpEF
- Leveraging entirety of cardiac myosin inhibitor data and experience to support starting dose for MYK-224 in HFpEF

**Initiate MYK-224 PoC in HFpEF in 2023/2024**

1. Preclinical model only tested in 'prevention', not 'treatment' mode

# Opportunity for sustained leadership in Cardiovascular

## Successful history of developing leading CV medicines (e.g., Plavix & Eliquis)

## Extending our leadership in thrombotic diseases

- **Milvexian:** Robust Phase 2 program supported differentiated clinical profile; Phase 3 studies in SSP, ACS and AF underway

## Potential opportunity for myosin inhibitors in cardiomyopathies and heart failure

- **Camzyos:** Expansion into nHCM with Ph3 trial underway
- **MYK-224:** Initiating PoC trial in HFpEF based on supportive data

**Addressing cardiovascular diseases impacting 17M+[1] patients**



1. Source: 2023 estimates from Decision Resource Group & BMS Internal Analysis across indications in the U.S. & EU5

# Neuroscience

# Building an exciting portfolio in neurodegenerative and neuroinflammatory conditions

## Neurodegeneration/Neuroinflammation

- ALS
- Alzheimer's Disease
- Huntington's Disease
- Multiple Sclerosis
- Parkinson's Disease

## In Development

- **Anti-MTBR-Tau mAb**
- **eIF2B Activator**
- **TYK2i-CNS[1]**
- **FAAH-MGLL**

**22 active programs in discovery**

**Powered by internal & external innovation**

1. TYK2i-CNS to transition into clinic soon

# BMS-986446 (PRX005): Potential best-in-class antibody to slow or halt the progression of Alzheimer's Disease

- The propagation of Tau pathology as Alzheimer's Disease (AD) progresses is thought to be mediated by Tau "seeds" containing the MTBR region of tau[1]
- Tau, not Ab, deposition correlates with age of AD onset, disease duration, and cognitive impairment[1]

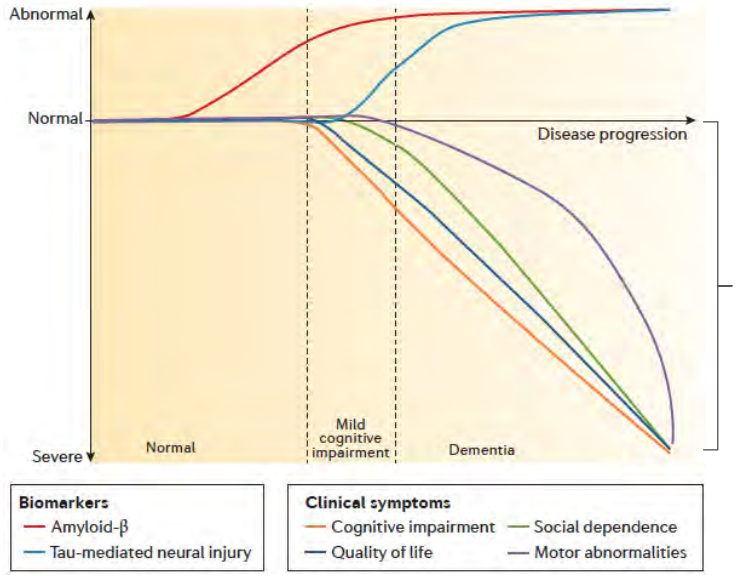



Figure adapted from *Masters et al, Nat Rev Dis Prim 2015*

- A Tau fragment (MTBR-Tau 243) has recently been shown to correlate well with tau accumulation as measured by Tau-PET imaging and cognitive impairment[3]
- BMS-986446 targets MTBR-Tau 243 and binds with high affinity to both the 3R and 4R isoforms of tau[4,5]

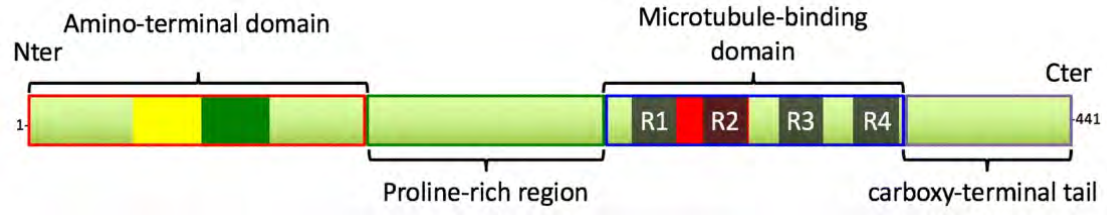



Figure adapted from *Colin et al, Acta Neuropathologica 2020*

BMS-986446: Preclinical models showed significant reduction of intraneuronal tau pathology and protection against behavioral deficit in a tau transgenic mouse model in vivo and complete blockade of neuronal tau internalization in vitro[5]

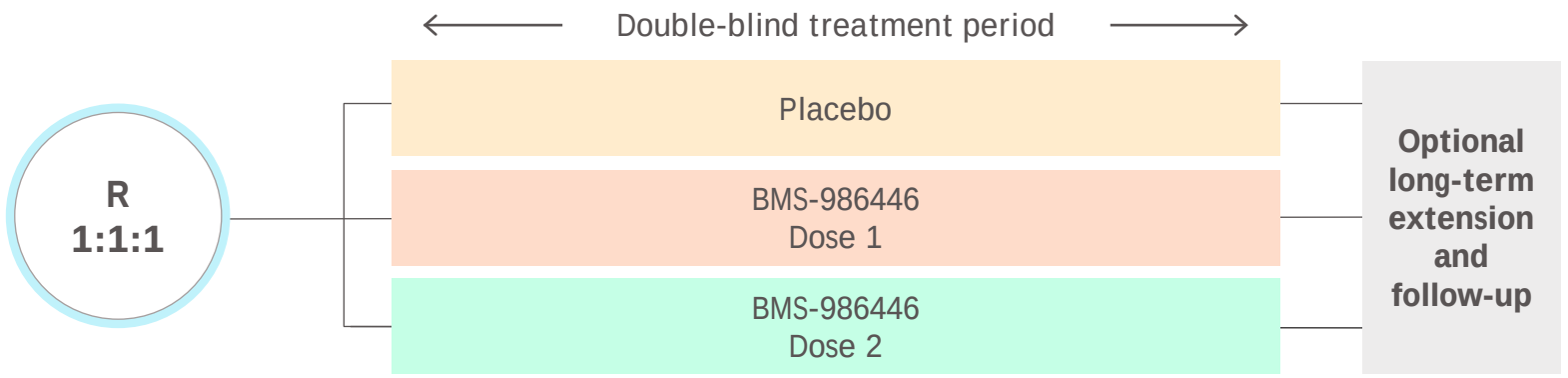

1. Horie, et al. *Brain* 2021. 2. Murray, et al. *Brain*. 2015. 3. Horie, et al. *Nat Med.* 2023. 4. Data on file: Prothena Press release 7/10/2023. 5. Dolan ADPD 2021

# Phase 1 data supports rapidly moving BMS-986446 into Phase 2

**Phase 1 Findings[1]**

- Safe and well-tolerated in Phase 1 across 3 dose cohorts; no deaths or SAEs observed in healthy participants
- Demonstrated dose-proportional anti-tau concentrations in plasma with CNS penetration in healthy participants
- No persistent anti-tau-induced anti-drug antibodies observed
- Robust exposure in the CSF at 1-month predicts substantial target engagement in CNS

## PoC in Alzheimer's Disease to initiate in 1H 2024





1. Martenyi, et al AAIC 2023 Poster 74181

# eIF2B Activator (BMS-986419): Potential across a range of neurodegenerative conditions

## Misfolded protein accumulation & evidence of ISR activation is present in multiple neurological conditions[1]

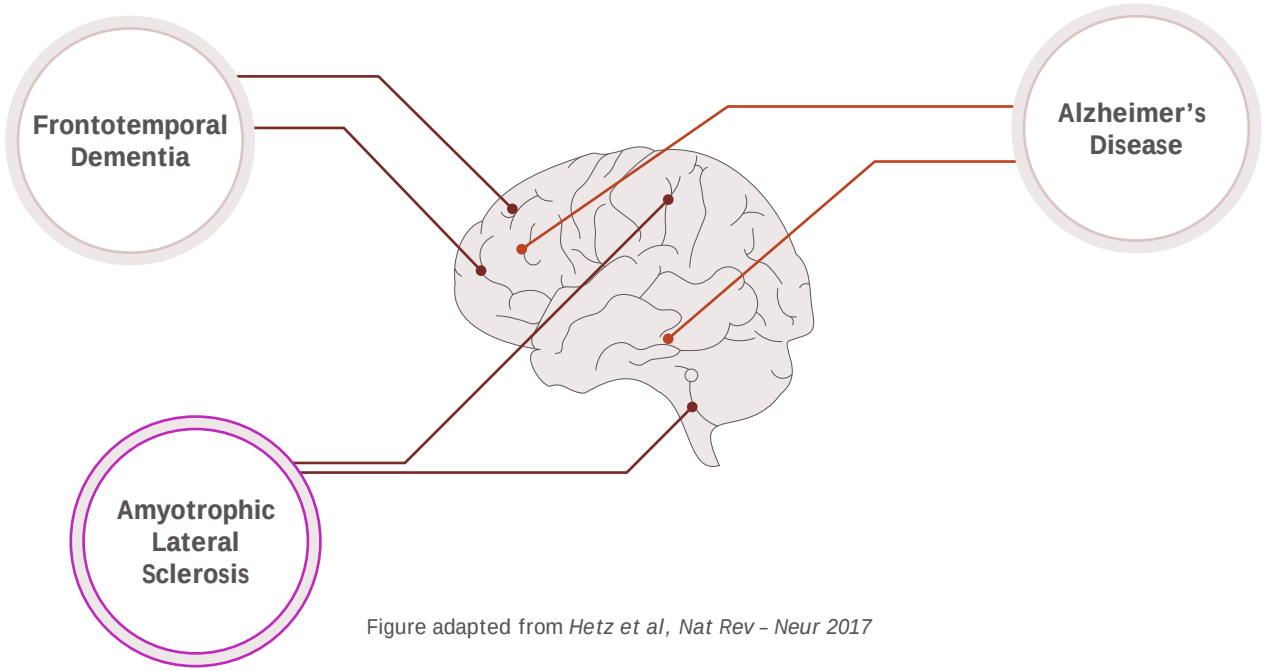



Figure adapted from *Hetz et al, Nat Rev – Neur 2017*

**BMS-986419: Safe and well-tolerated in Phase 1 SAD/MAD study potential opportunity as monotherapy or combinations**

- Stressed cells that develop a chronically activated ISR accumulate misfolded proteins that impair cell functions and can lead to cell death
- The eIF2 complex is an ISR "master regulator" that becomes dysfunctional in chronic disease
- BMS-986419 binds to a subunit in the eIF2 complex (eIF2B) restoring normal ISR function, protein clearance and cellular homeostasis

**Phase 2 study in ALS initiating in 2024**

ALS: Rapidly progressing & fatal neurodegenerative disease caused by death of motor neurons:

- Survival is typically only 2-5 years from symptom onset[3]
- ~39k[4] diagnosed prevalent patients in the U.S.
- Limited treatment options

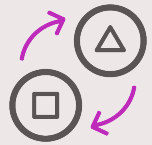


1. Hetz et al, *Nat Rev – Neur.* 2017. 2. Smith et al, *Brain* 2016. 3. Masron et al, *Eur J Neur* 2020. 4. Decision Resources Group, BMS Internal Analysis;
ISR: Integrated Stress Response

# Re-establishing Neuroscience pipeline

Building a diverse pipeline across an array of neurodegenerative & neuroinflammation diseases

Anti-MTBR-Tau moving into POC next year in Alzheimer's Disease



eIF2B is moving into a Phase 2 trial in ALS

**TYK2i-CNS to transition into clinic soon targeting Multiple Sclerosis**

# We are driving improved operational efficiency to accelerate speed to market

**Early Phase Development (I/II)** → **Phase III** → **Submission Activities**

Active future timeline

Reduction from previous timeline

Optimized study design

World-class trial operations capabilities, ~40 countries footprint, robust site & patient engagement strategies

Near-time data review and submissions

**Further enabled through Digital Innovation & AI**

# Implementing innovative AI/Digital tools to accelerate our R&D productivity

| What | How |
| --- | --- |
| Significantly more powerful hypothesis generation | Building predictive disease models using a vast proprietary data factory |
| Digital trial design optimization | Powerful statistical simulation suite that aggregate millions of data points to enable decisions around effect-size, power, patient-selection, timelines & cost |
| Enhancing clinical trial operations | Real-time site selection based upon protocol required patient characteristics |
| Rapid data interpretation and reporting | Effective automation and visualization technologies to enable timely data insights and clinical trial reporting |

Cytel · NVIDIA · nurocor · OWKIN · Columbia University Medical Center · TEMPUS · TriNetX · COTA · EDETEK · flatiron · ConcertAI

# Important updates today

## Expanding Currently Launched Products

- **Sotyktu:**
  - *Impressive Ph2 SLE data supports Ph3 programs in SLE & SjS*
- **Abecma:**
  - *KarMMa-3 under regulatory review in triple class exposed population*
  - *KarMMa-9 registrational trial in post-transplant MM initiating this year*
- **Subcutaneous nivolumab:**
  - *Potential to benefit patients into early 2030's with data anticipated this year*
- **Camzyos:**
  - *Data suggests myosin inhibitors remodel the heart*

## New Wave of NME

- **$LPA_1$ Antagonist:**
  - *Demonstrated compelling Ph2 PPF data and Ph3 studies initiating*
- **CD19 NEX T:**
  - *Ph 1 study initiated in severe, refractory lupus with promise to reset the immune system & expanding into other immunologic diseases*
- **BET Inhibitor (BMS-986158):**
  - *Proof-of-concept data expected early next year*
- **GPRC5D CAR T:**
  - *Differentiated profile addressing unmet need post-BCMA targeting treatment; initiating pivotal trial next year*
- **alnuctamab:**
  - *Initiating Ph3 trial in 2024 in MM*
- **iberdomide/mezigdomide:**
  - *Ph3 data expected in 2026*
- **golcadomide:**
  - *Initiating Ph3 trial in 2024 in 1L LBCL*
- **AR LDD:**
  - *Significant opportunity in mCRPC with data expected early next year*
  - *Initiating pivotal trial in the next 18 months*
- **milvexian:**
  - *Compelling rationale for Ph3 programs*

## Early Assets to Watch

- **BCMA x GPRC5D:**
  - *Entering into POC soon*
- **BCL6 LDD:**
  - *Novel oral degrader in lymphomas*
- **TIGIT Bispecific:**
  - *Differentiated IO; targeting TIGIT & CD96*
- **DGK inhibitor:**
  - *Potential transformational oral, dual inhibitor*
- **Anti-CCR8:**
  - *Treg depleting mAb therapy with broad combination potential*
- **Advancing Neuro PoC trials in 2024:**
  - *Anti-MTBR-Tau in Alzheimer's Disease*
  - *eIF2B Activator in ALS*
- **TYK2i CNS (pre-clinical):**
  - *Moving into clinic soon, targeting MS*
- **MYK-224:**
  - *Progressing into HFpEF*

## Productivity

Increasing registrational assets from 6 to 12 in next 18 months

Increase INDs to at ~10 per year

Increase to ~20% PoS from FIH to approval

Achieve median ~6.5 years from FIH to approval

# Conclusion

## Chris Boerner, PhD

*EVP, Chief Operating Officer*

*CEO, effective Nov. 1, 2023*

# Numerous levers to drive long-term growth

- Extended durability of our IO business with subcutaneous nivolumab and Opdualag
- Increasingly de-risked the New Product Portfolio
- Registrational portfolio increasing from **6 to 12** new assets over the next 18 months
- Developing medicines in rapidly growing markets with significant commercial opportunities
- Leading positions with differentiated platforms in Cell Therapy and Targeted Protein Degradation
- Strategic optionality from Business Development

**Clearly establish BMS as an R&D leader by the end of the decade**

# Extended durability of our I-O business

| Today | Opportunity |
| --- | --- |
| OPDIVO® (nivolumab) INJECTION FOR INTRAVENOUS USE 10 mg/mL | **Subcutaneous nivolumab**<br>• Potential to benefit patients into early years of next decade<br>• Roughly 65-75% of IV US revenue potentially on-label at launch |

| Today | Opportunity |
| --- | --- |
| Opdualag™ (nivolumab and relatlimab-rmbw) Injection for intravenous use \| 480 mg/160 mg | • Benefits patients into the next decade in 1L melanoma<br>• Potential to benefit beyond melanoma (adj. melanoma, MSS CRC, lung, and HCC) |

# New product portfolio significantly de-risked with important catalysts ahead

**CAMZYOS**

**Milestones Achieved**
- ✓ Camzyos oHCM

**Future Catalysts**
- Camzyos nHCM

**Opdualag**

**Milestones Achieved**
- ✓ Opdualag 1L Mel FDC

**Future Catalysts**
- Opdualag 1L NSCLC
- Opdualag Adj. Mel
- Opdualag 2L+ MSS CRC

**SOTYKTU**

**Milestones Achieved**
- ✓ Sotyktu PsO

**Future Catalysts**
- Sotyktu PsA
- Sotyktu SLE

**Reblozyl**

**Milestones Achieved**
- ✓ Reblozyl 2L TD MDS
- ✓ Reblozyl 1L MDS

**Future Catalysts**
- Reblozyl MF

**Breyanzi**

**Milestones Achieved**
- ✓ Breyanzi 3L+ LBCL
- ✓ Breyanzi 2L LBCL

**Future Catalysts**
- Breyanzi 3L+ CLL
- Breyanzi 3L+ iNHL

**ZEPOSIA**

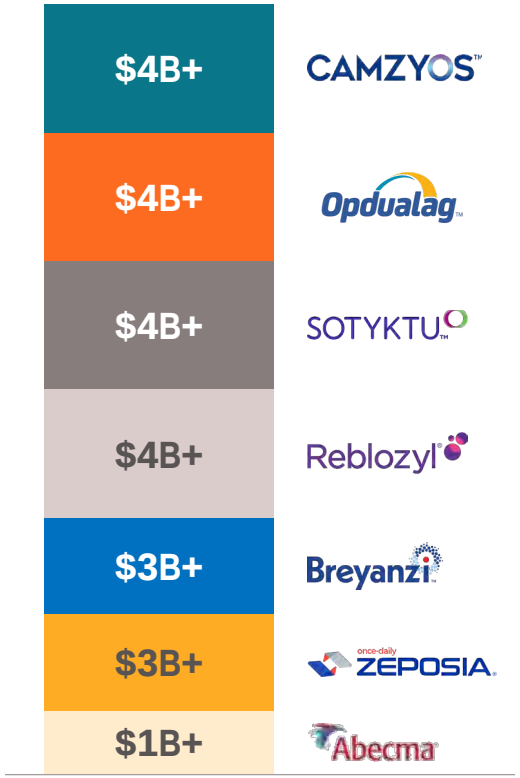
**Milestones Achieved**
- ✓ Zeposia MS
- ✓ Zeposia UC

**Future Catalysts**
- Zeposia CD

**Abecma**

**Milestones Achieved**
- ✓ Abecma 5L+
- ✓ Abecma 3-5L

**$25B+**
Non-Risk Adjusted*



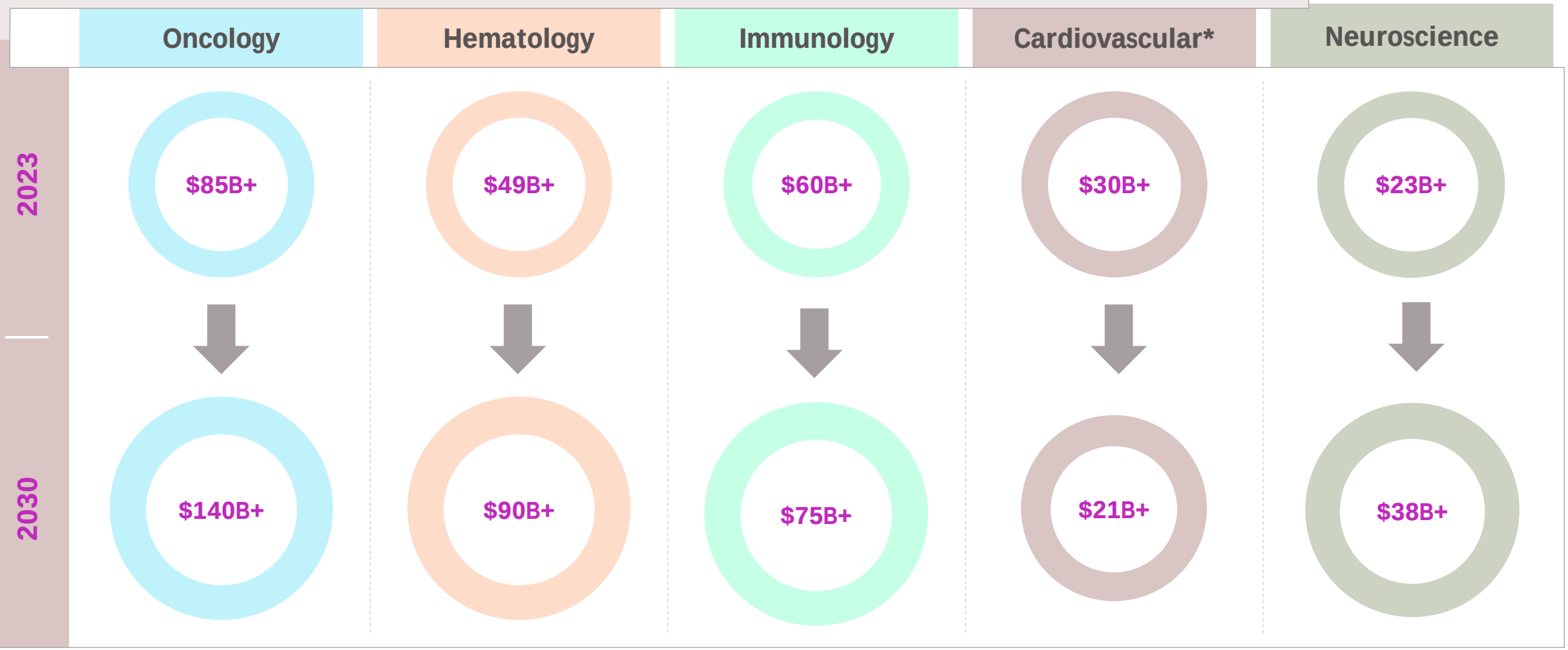

*Non-risk adjusted revenue potential, subject to positive registrational trials and health authority approval
Note: Onureg & Inrebic <$1B NRA
Financial projections may contain non promoted sales, BMS promotes only according to label

# We are increasing registrational portfolio from 6 to 12 potentially first-in-class/best-in-class assets over the next 18 months

| In registrational studies | | Registrational studies pending | |
|---|---|---|---|
| mezigdomide | repotrectinib* | CD19 NEX T | BET Inhibitor (BMS-986158) |
| iberdomide | cendakimab | GPRC5D CAR T | alnuctamab |
| milvexian | $LPA_1$ Antagonist | golcadomide | AR LDD |

*Filed, U.S. PDUFA 11/27/2023

# Developing medicines in rapidly growing markets with significant commercial opportunities






*CV markets impacted by generic entry in Atrial Fibrillation
Source: EvaluatePharma estimates

# Building a competitive advantage in Cell Therapy

## Manufacturing capacity is expanding

***Plan to deliver top-tier supply chain, manufacturing capacity & reliability:***

- **Expanding drug product capacity**
- **Strengthening vector supply**
- **Increasing efficiency**

## Innovative pipeline is advancing

- **Expanding to immunologic diseases**
- **Developing new targets**
- **Exploring innovative technologies e.g., dual binding CAR & allogeneic**

**Well-positioned at the center of the innovation ecosystem**

# Targeted Protein Degradation platform is poised for a step-change in productivity

| | |
|---|---|
| **Growing asset library** | • **Extensive number of potential INDs identified**<br>• **Opportunities across therapeutic areas** |
| **Industry-leading capabilities** | • **Significant experience applying preclinical, manufacturing, translational, AI/digital and clinical tools to optimize candidates** |

**Engine expected to deliver approximately 4 INDs annually**

# Enhancing BMS leadership by the end of the decade

## Strong track record

- **9** new products delivered since 2019
- **3** first-in-class medicines in 2022
- **20+** new indications & **45+** approvals across U.S., EU & Japan since 2020

## High quality pipeline

- Registrational pipeline increasing to **12** new assets over the next 18 months
- Targeting high unmet need with growing commercial potential

## Improved productivity

- Deliver **~10** INDs per year
- Increase to **~20%** PoS from FIH to approval
- Achieve median of **~6.5 years** from FIH to approval

**Continual generation of new first-in-class or best-in-class medicines**

# Q&A

# Acronyms

| | | | | | |
|---|---|---|---|---|---|
| **6MWT** | Six Minute Walk Test | **HDT** | High Dose Therapy | **NTRK** | Neurotrophic Tyrosine Receptor Kinase |
| **AA** | Alopecia Areata | **HFpEF** | Heart Failure with Preserved Ejection Fraction | **NYHA** | New York Heart Association |
| **ACR** | American College of Rheumatology | **HFrEF** | Heart Failure with Reduced Ejection Fraction | **oHCM** | Obstructive Hypertrophic Cardiomyopathy |
| **ACS** | Acute Coronary Syndrome | **IBD** | Inflammatory Bowel Disease | **ORR** | Overall Response Rate |
| **ADC** | Antibody-Drug Conjugate | **ICANS** | Immune Effector Cell-associated Neurotoxicity Syndrome | **OS** | Overall Survival |
| **ADT** | Androgen Deprivation Therapy | **iiNT** | Investigator-identified Neurotoxicity | **PFS** | Progression-free Survival |
| **AF** | Atrial Fibrillation | **ILD** | Interstitial Lung Disease | **PI** | Proteosome Inhibitor |
| **AI** | Artificial Intelligence | **IMiD** | Immunomodulary Drug | **PoC** | Proof of Concept |
| **ALS** | Amyotrophic Lateral Sclerosis | **IND** | Investigational New Drug | **PoS** | Probability of Success |
| **AML** | Acute Myeloid Leukemia | **IO** | Immuno-Oncology | **PPF** | Progressive Pulmonary Fibrosis |
| **APC** | Antigen-Presenting Cell | **IPF** | Idiopathic Pulmonary Fibrosis | **ppFVC** | Percent of Predicted Forced Vital Capacity |
| **AR LDD** | Androgen Receptor Ligand-Directed Degrader | **IPI** | International Prognostic Index | **PR** | Partial Response |
| **ASCT** | Autologous Stem Cell Transplant | **IRA** | Inflation Reduction Act | **PsA** | Psoriatic Arthritis |
| **BCMA** | B-cell Maturation Antigen | **ISR** | Integrated Stress Response | **PSA** | Prostate Specific Antigen |
| **BID** | Twice Daily | **JAK2i** | Janus Kinase 2 Inhibitor | **PsO** | Psoriasis |
| **BILAG** | British Isles lupus Assessment Group index | **LBCL** | Large B-cell Lymphoma | **PTCL** | Peripheral T-cell Lymphoma |
| **BL** | Baseline | **LDD** | Ligand-directed Degrader | **QD** | Once Daily |
| **CAR T** | Chimeric Antigen Receptor T-cell | **LOE** | Loss of Exclusivity | **QoL** | Quality of Life |
| **CD** | Crohn's Disease | **LPA1** | Lysophosphatidic Acid Receptor 1 | **R** | Randomized |
| **CELMoD** | Cereblon E3 Ligase Modulator | **mAB** | Monoclonal Antibody | **RA** | Rheumatoid Arthritis |
| **CLASI** | Cutaneous Lupus Activity Index | **MCL** | Mantle Cell Lymphoma | **RBC** | Red Blood Cell |
| **CLL** | Chronic Lymphocytic Leukemia | **mCRPC** | Metastatic Castration-resistant Prostate Cancer | **RCC** | Renal Cell Carcinoma |
| **CPI** | Checkpoint Inhibitor | **mDOR** | Median Duration of Response | **ROS** | C-ros Oncogene |
| **CRPC** | Castration-Resistant Prostate Cancer | **MDS** | Myelodysplastic Syndrome | **RWE** | Real-World Evidence |
| **CRS** | Cytokine Release Syndrome | **MF** | Myelofibrosis | **SC** | Subcutaneous |
| **CV** | Cardiovascular | **MIUC** | Muscle-invasive Urothelial Carcinoma | **sCR** | Stringent Complete Response |
| **DIPSS** | Dynamic International Prognostic Scoring System | **ML** | Machine Learning | **SjS** | Sjogren's Syndrome |
| **DLT** | Dose-Limiting Toxicity | **MM** | Multiple Myeloma | **SLE** | Systemic Lupus Erythematosus |
| **DMPK** | Drug Metabolism Pharmacokinetics | **MoA** | Mechanism of Action | **SLEDAI-2K** | SLE Disease Activity Index 2000 |
| **EGE** | Eosinophilic Gastroenteritis | **mPC** | Metastatic Prostate Cancer | **SLL** | Small Lymphocytic Lymphoma |
| **EoE** | Eosinophilic Esophagitis | **MPN** | Myeloproliferative Neoplasm | **SoC** | Standard of Care |
| **ESSDAI** | EULAR Sjögren's Syndrome Disease Activity Index | **MRD** | Minimal Residual Disease | **SRI(4)** | Systemic Lupus Erythematosus Responder Index 4 |
| **ESSPRI** | EULAR Sjögren's Syndrome Patient Reported Index | **MS** | Multiple Sclerosis | **SSP** | Secondary Stroke Prevention |
| **EULAR** | European League Against Rheumatism | **MSS mCRC** | Microsatellite Stable Metastatic Colorectal Cancer | **TA** | Therapeutic Area |
| **FL** | Follicular Lymphoma | **MZL** | Marginal Zone Lymphoma | **TCE** | T-cell Engager |
| **Flu/Cy** | Fludarabine and Cyclophosphamide | **NDMM** | Newly Diagnosed Multiple Myeloma | **TD** | Transfusion Dependent |
| **FVC** | Forced Vital Capacity | **NFPB** | Non-fucosylated Probody | **TIGIT** | T-cell Immunoglobulin and ITIM Domain |
| **FXa** | Factor 10a | **nHCM** | Non-obstructive Hypertrophic Cardiomyopathy | **TKI** | Tyrosine Kinase Inhibitor |
| **FXIa** | Factor 11a | **NHL** | Non-hodgkin's Lymphoma | **TKR** | Total Knee Replacement |
| **GI** | Gastrointestinal | **NHT** | Novel Hormone Therapy | **TRAE** | Treatment-related Adverse Event |
| **GPRC5D** | G Protein Coupled Receptor, Class C, Group 5, Member D | **NSCLC** | Non-small Cell Lung Cancer | **TYK2** | Tyrosine Kinase 2 |
| **HbF** | Fetal Hemoglobin | **NT** | Neurotoxicity | **UC** | Ulcerative Colitis |
| **HCC** | Hepatocellular Carcinoma | **NTD** | Non-transfusion Dependent | **VGPR** | Very Good Partial Response |

# R&D efforts align with ESG values

## Addressing areas of **high unmet need**

- 40+ disease areas studied, including several rare diseases
- Novel drugs with three first-in-class medicines launched in 2022
- Diverse modalities with 10 drug platforms (e.g., cell therapy)

## Enhancing **health equity and clinical trial diversity**

Numerous initiatives related to ensuring clinical trial diversity:

- 58% of US clinical trial sites located in highly diverse communities
- Racial diverse participants at 22% (goal 20%) in 2022

## **Responsibly driving innovation** to maximize impact

- "Green by design" principles and a green chemistry approach, reducing total waste generated
- "Green chemistry reviews" to identify opportunities for reducing safety and environmental impact



Representative examples, not exhaustive

# Changes to the Development Pipeline

| | Phase I | Phase II | Phase III |
|---|---|---|---|
| **New or Phase Transition** | ✦BCL6 LDD in Lymphoma | | ✦LPA1 Antagonist in IPF<br>LPA1 Antagonist in PPF<br>✦obexelimab*# in IgG4-Related Disease |
| **Removed** | ✦NME 2<br>✦CD47xCD20<br>✦GSPT1 CELMoD (CC-90009)<br>✦RIPK1 Inhibitor | ✦Anti-TIGIT<br>✦HSP47 | |

**Registrational Submissions**

**Approvals (n=2)**

- OPDIVO in Adj Melanoma (EU)
- REBLOZYL in 1L MDS associated anemia (US)

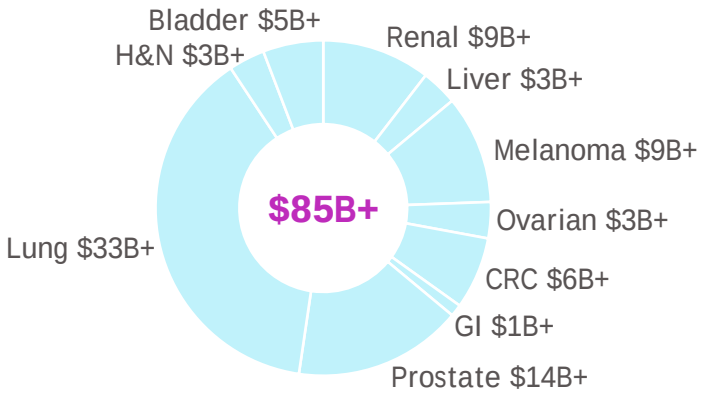
* Partner-run study; ✦NME leading indication; # BMS territory

Oncology | Hematology | CV | Immunology | Neuroscience

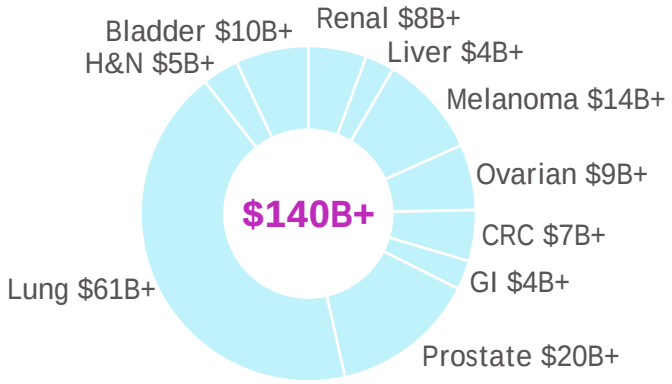
# Addressing high unmet medical need in Oncology & Hematology

## Oncology

### 2023

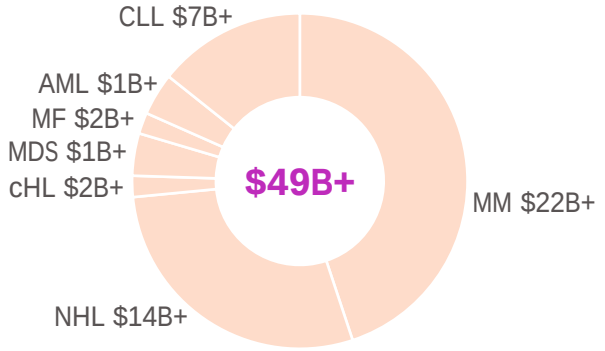



### 2030

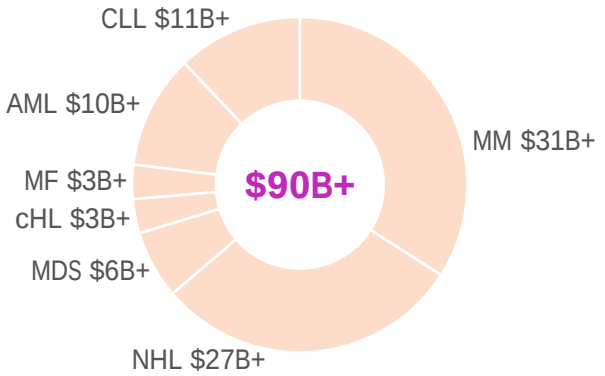



## Hematology

### 2023

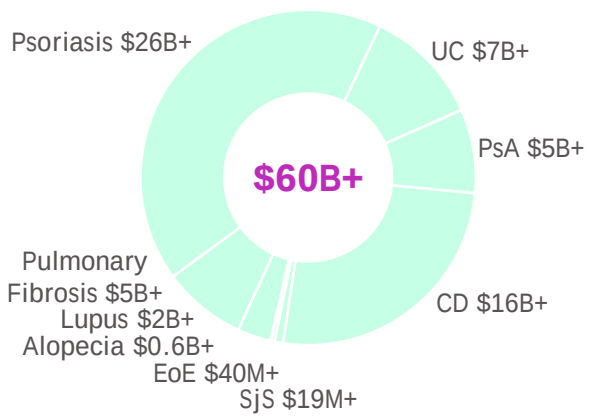
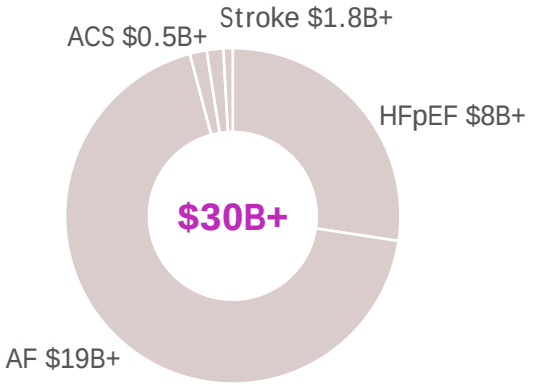
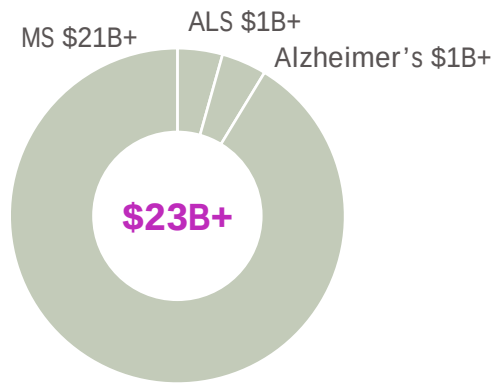
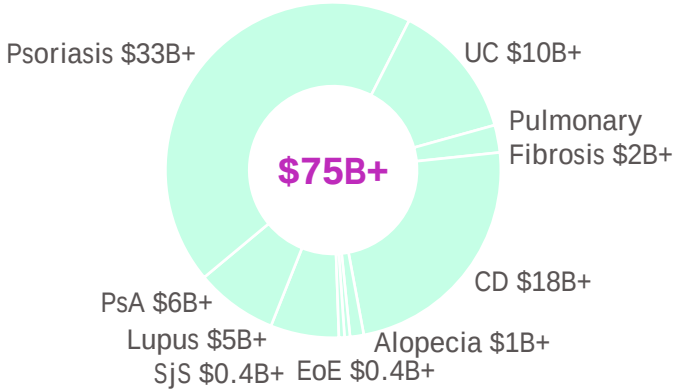
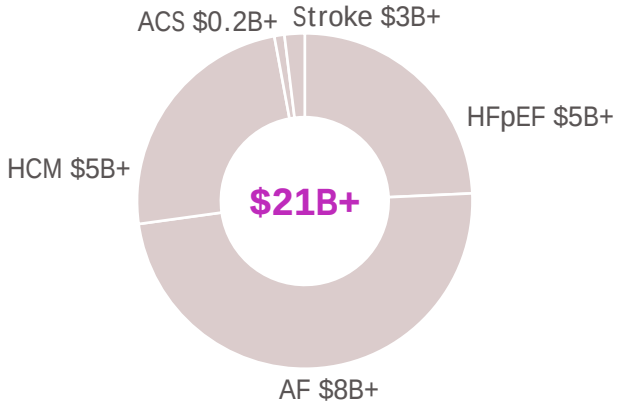
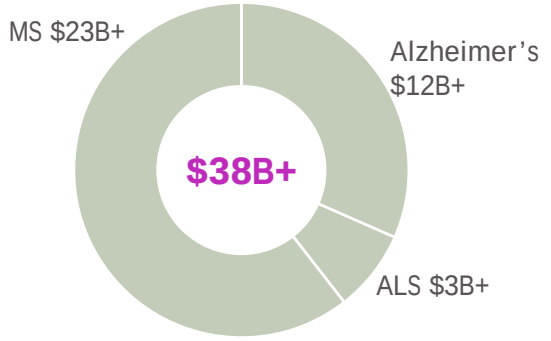



### 2030




Source: EvaluatePharma estimates; totals may not add due to rounding

# Addressing high unmet medical need in Immunology, Cardiovascular & Neuroscience

| | Immunology | Cardiovascular | Neuroscience |
|---|---|---|---|
| 2023 |  |  |  |
| 2030 |  |  |  |





*CV markets impacted by generic entry in Atrial Fibrillation
Source: EvaluatePharma estimates; totals may not add due to rounding

# Farletuzumab ecteribulin (FZEC)[1]: Novel folate receptor alpha (FRα) ADC

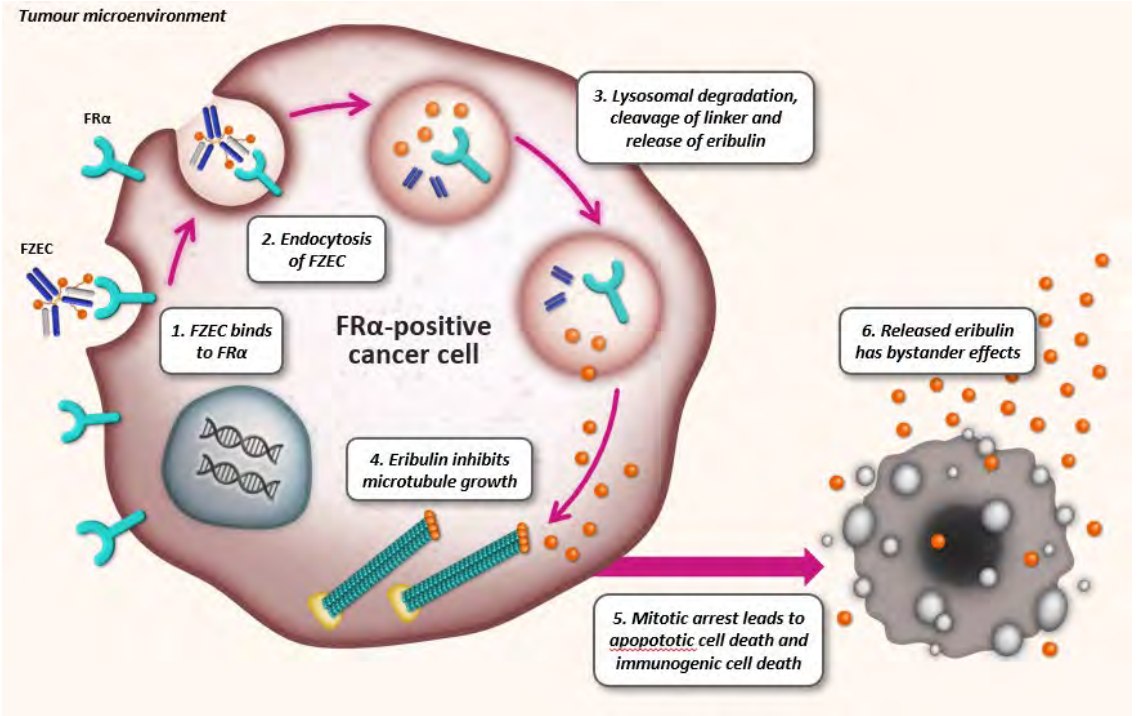
## Overview

- FRα is a folate-binding protein that has limited expression on normal tissues and is overexpressed in malignant cells[2]
- FZEC binds to FRα on the surface of tumor cells, is internalized and cleaved to release the payload, **eribulin**
  - Eribulin inhibits microtubule growth resulting in cell death
- FZEC may potentially target tumors with heterogenous FRα expression through bystander effect of eribulin on nearby FRα-negative cells

## Development plan

- PoC trials ongoing in NSQ NSCLC, ovarian & endometrial cancers
- In dose expansion to optimize the therapeutic index with data anticipated in 2024

## MOA: Target delivery of differentiated payload, eribulin

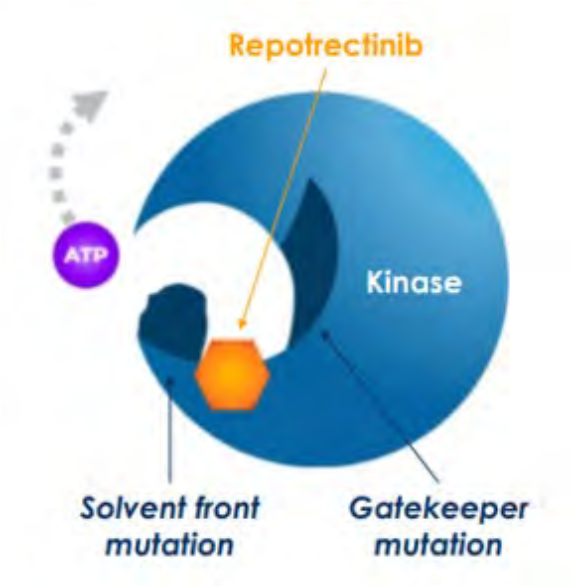



High addressable population based on range of FR expression

1. In partnership with Eisai; 2. Level of overexpression may vary depending on tumor type

# Repotrectinib: Potential Best-in-Class ROS1 Inhibitor in NSCLC

## Highly Potent & Differentiated Small Molecule




| | | |
|---|---|---|
| ROS1+ TKI-Naïve NSCLC; **ORR** (95% CI) | | **79%** (67.6, 87.7) |
| **TKI-Pretreated Activity** | | ✓ ORRs of 28-42% (n=100) |
| **CNS Activity (*ROS1*+ NSCLC)** | | ✓ |
| ***ROS1*+ TKI-Naïve NSCLC Durability** | **DOR** | • ≥12-month DOR: 83.1% (73.1, 93.2)<br>• mDOR: 34.1 (25.6-NE) |
| | **PFS** | • ≥12-month PFS: 76.6% (66.2, 87.0)<br>• mPFS: 35.71 (27.40, NE) |
| **Generally Well Tolerated Safety Profile** | | |

Source: Cho BC, et al. IASLC WCLC 2023

**Clinically differentiated profile** in NSCLC

## Market Potential

**ROS1 Prevalence:**
**~1.5% of NSCLC patients[2]**

**Existing ROS1 market:**
**~$500-$600M[3]**

Opportunity to roughly **double** the ROS1 market & achieve best-in-class share based on:

- Longer duration of response
- Higher response rate
- Better safety / tolerability profile

U.S. PDUFA November 27, 2023

# BMS-986288: A next generation CTLA-4 antibody

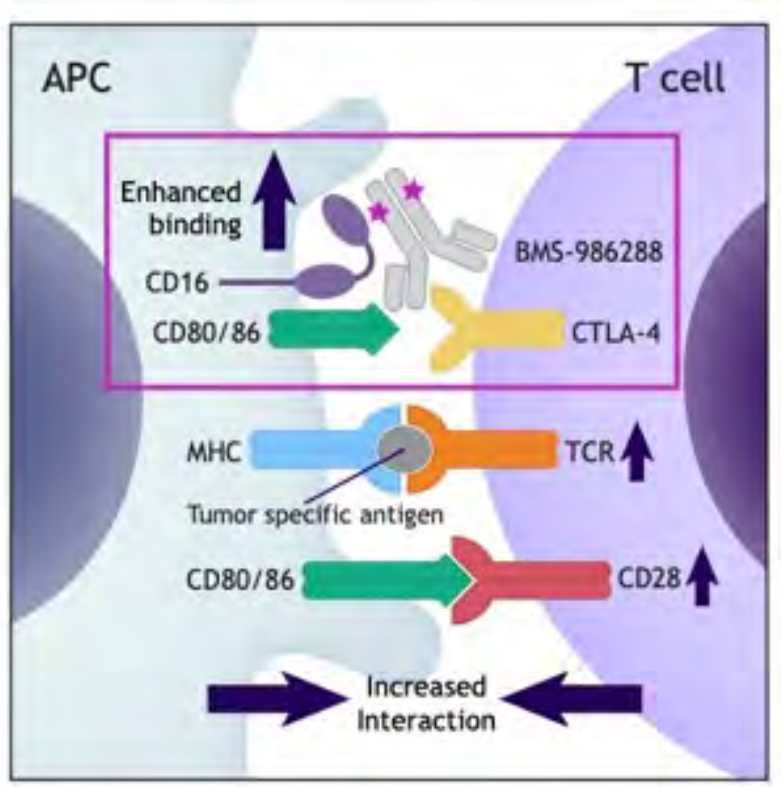
## Overview

- CTLA-4: established MOA, with Yervoy approved across solid tumors
- Challenges (toxicity and patient selection) associated with targeting CTLA-4 have limited development
- BMS-986288 is a next-generation CTLA-4 designed to improve the benefit/risk:
  - NF (enhanced CD16 binding) biology increases immune priming via Fc engagement enhancing anti-tumor response
  - Improves safety profile with Probody® added to NF allowing for combinations and moving to earlier lines of therapy

## Development plan

PoC trials in NSCLC & MSS CRC ongoing; data anticipated in 2024

**MOA:** A masked non-fucosylated anti-CTLA-4 antibody which improves immune priming and the safety profile

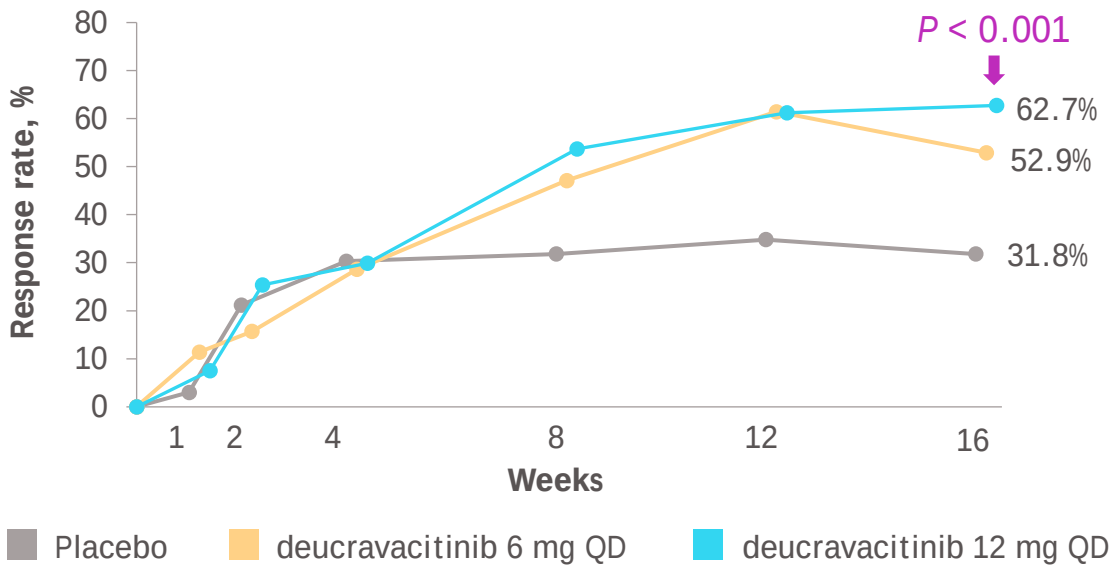



Broad range of development opportunities

# PsA: Sotyktu Phase 2 responses provide confidence for Phase 3

**Unmet need: Effective, tolerable, oral options with a novel mechanism to address both skin and joint involvement**

## Phase 2 Primary Endpoint: ACR20 over time[1]



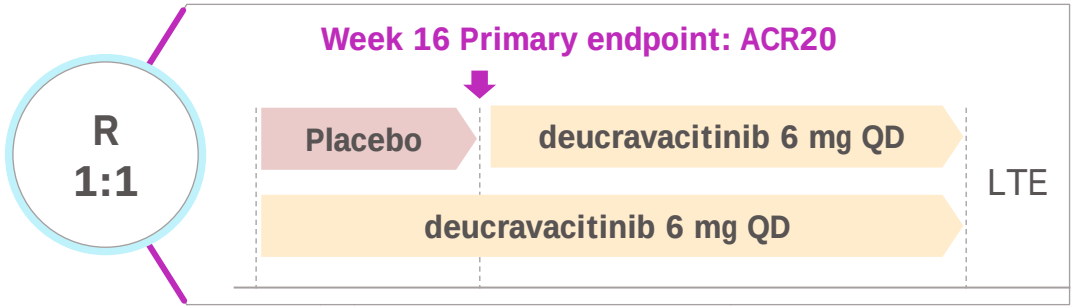

**All primary and key secondary endpoints were achieved in patients with active PsA**

**Treatment was well-tolerate with a safety profile consistent with prior studies**

**Phase 3 program ongoing**
data anticipated 2024/2025

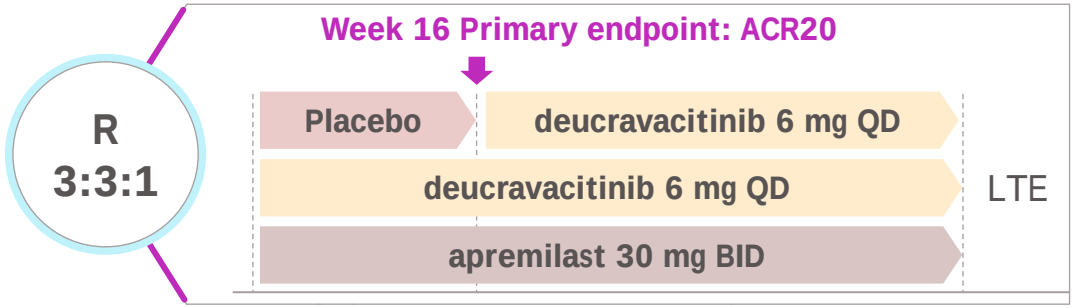
## POETYK-PSA-1[2]

- Active disease; biologic DMARD-naïve
- ≥ 1 PsA-related hand and/or foot joint erosion on X-ray




## POETYK-PSA-2[3]

- Active disease; biologic DMARD-naive OR TNF inhibitor experienced





1. Mease PJ et al. *Ann Rheum Dis*. 2022;81:815–822. 2. NCT04908202; 3. NCT04908189

# Established IBD presence with Zeposia in UC, with potential expansion to Crohn's Disease

## Zeposia in IBD

### Ulcerative Colitis

*Approved in the U.S. & EU*

Zeposia provides UC patients with efficacy comparable to biologics, and a favorable safety profile in an oral medicine

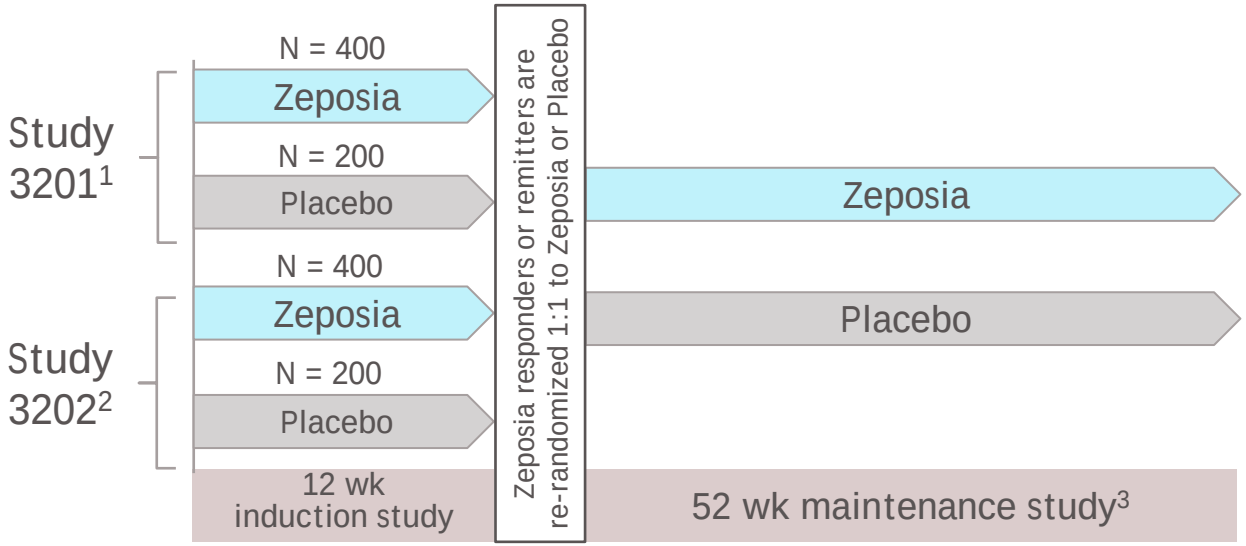
### Crohn's Disease

**Phase 3 YELLOWSTONE program ongoing**

**Maintenance study data anticipated 2026**

**Primary endpoints:**

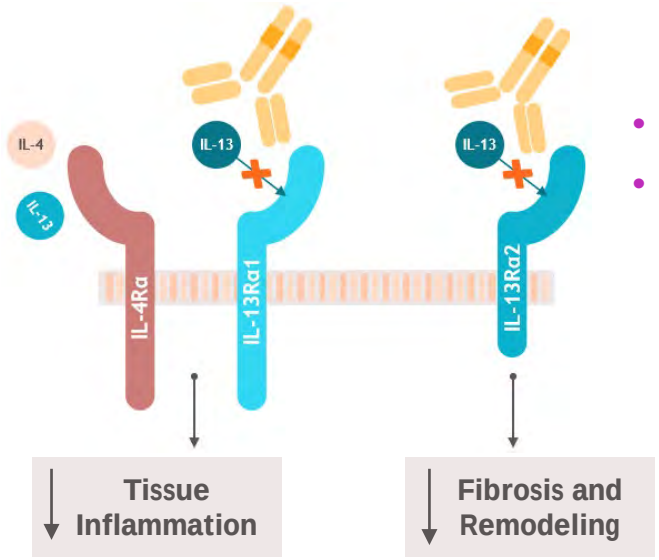
- Induction studies: Week 12 clinical remission
- Maintenance study: Co primary @ Week 52 clinical remission and endoscopic response




1. NCT03440372; 2. NCT03440385; 3. NCT03464097

# Cendakimab: High-Affinity IL-13 Neutralizing Antibody for EoE

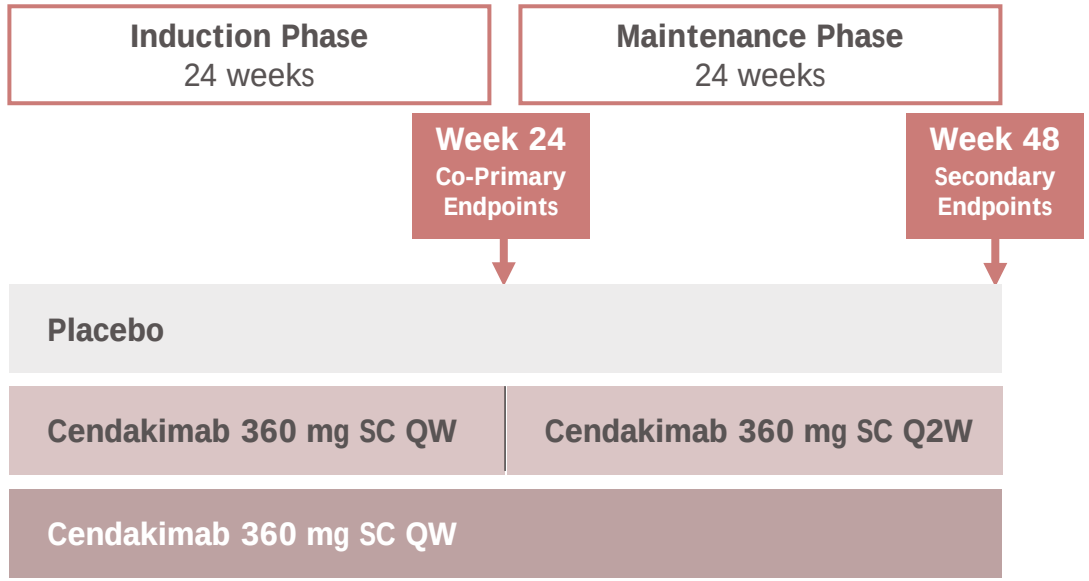
## Eosinophilic Esophagitis + Cendakimab




- Binds to IL-13 ligand
- Blocks IL-13 binding to both IL-13Rα1 & IL-13Rα2 subunits

- EoE is a life altering disease affecting ~700k[1] prevalent patients (combined U.S./EU5)
- Potentially differentiated MoA addressing a significant unmet need for a highly efficacious treatment that improves both inflammation & fibrosis/remodeling

## EoE: Currently Enrolling Phase 3 study[2]




**Co-primary (week 24):**

- Change in dysphagia days
- Histologic response: eos ≤6/hpf

**Key secondary (weeks 24 & 48):**

- Histologic response: eos <15/hpf
- EREFS
- EoE-HSS
- mDSD composite score

**Data anticipated in 2024**

1. Source: Decision Resources Group; BMS Internal Analysis; 2. NCT04753697