



### ACTUALIZING THE UNTAPPED POTENTIAL OF THE INNATE IMMUNE SYSTEM

Affimed's Approach to Advancing Immuno-Oncology

February 2022

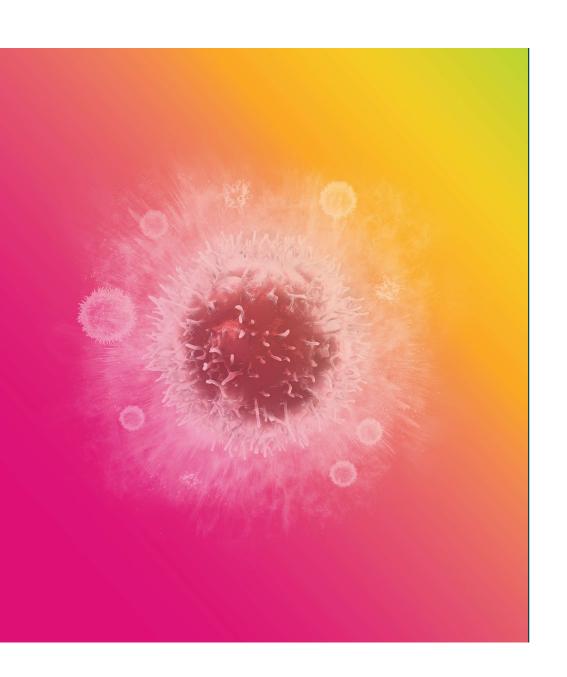
### Forward-Looking Statements / Cautionary Note

This presentation and the accompanying oral commentary contain "forward-looking" statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this presentation and the accompanying oral commentary, including statements regarding our future financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "believe," "will," "may," "estimate," "continue," "anticipate," "intend," "should," "plan," "might," "approximately," "expect," "predict," "could," "potentially" or the negative of these terms or other similar expressions.

Forward-looking statements appear in a number of places throughout this presentation and the accompanying oral commentary and include statements regarding our intentions, beliefs, projections, outlook, analyses and current expectations concerning, among other things, the value of our ROCK® platform, the safety and efficacy of our product candidates, our ongoing and planned preclinical development and clinical trials, our collaborations and development of our products in combination with other therapies, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, our intellectual property position, our collaboration activities, our ability to develop commercial functions, clinical trial data, our results of operations, cash needs, financial condition, liquidity, prospects, future transactions, growth and strategies, the industry in which we operate, the trends that may affect the industry or us, impacts of the COVID-19 pandemic and the risks, uncertainties and other factors described under the heading "Risk Factors" in Affimed's filings with the Securities and Exchange Commission.

Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements represent our management's beliefs and assumptions only as of the date of this presentation. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons why actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.





# Driving the revolution in cancer treatment

Inspired by the immense potential of the innate immune system (NK cells and macrophages), we are dedicated to unlocking profound possibilities through the development of our Innate Cell Engagers (ICE®) and to bringing new hope to those whose lives have been forever changed by the impact of cancer



### Our Approach for Delivering Transformative, Indication-Specific Medicines Has Been Clinically Validated



#### **Pioneer** Powerful ICE® Monotherapies

In indications where the innate immune system is functional

#### Combine ICE® With NK Cells

Supplement patients with dysregulated innate immune systems with targeted cellular therapy

#### **Combine** ICE® With Other I-O Therapies

Co-activation of innate and adaptive immune systems

#### **Expand and Accelerate** With Partnerships

Maximize potential of pipeline through partnership strategy

ICE® **Monotherapies INNOVATIVE** TREATMENTS THAT LEVERAGE THE POWER **OFTHE INNATE IMMUNE SYSTEM ICE®** ICE® Combinations Combinations With NK Cells

**EXPAND AND ACCELERATE WITH PARTNERSHIPS** 



### **Creating a New Dimension in Cancer Treatment Through** Innovation, Novel Products, Expertise and Partnerships



#### **Proprietary ROCK® Platform Enables Customized, Tumor-Targeted Approach**

- ICE® molecules with dual mode of action, activating NK cells and macrophages
- Efficient, predictable development of potent, CD16A-targeted ICE® molecules
- Pre-clinical data demonstrating increased cytotoxicity vs. mAb platforms

#### **Broad Pipeline in Hematologic** and Solid Tumor Indications

- Developing medicines in areas of high unmet need and large opportunity
- Pipeline with >10 wholly owned and partnered ICE® molecules
- POC data supporting ICE® development as monotherapy and in combinations

#### Value-Driving **Catalysts**

- Several programs in clinical trials or advancing towards IND with the most advanced in registration directed study
- Planned data releases from clinical studies with ICE® as monotherapy and in combinations
- Innovative platform enabling high-end partnership deals

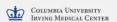
#### Strong Foundation of Experienced Leadership, Partnerships and Cash Position

- Management team with depth and breadth of industry experience
- Cash runway into 2H 2023 with multiple value inflection points in 2022



















2H = second half **CD** = cluster of differentiation ICE® = innate cell engager IND = investigational new drug **mAb** = monoclonal antibody NK = natural killer **POC** = proof of concept ROCK® = Redirected Optimized Cell Killing



### A Growing Pipeline Poised to Advance the Treatment of Cancer

Broad Pipeline of Wholly Owned and Partnered Programs

Candidate	Approach	Indication	Discovery	Ph. 1	Ph. 2a	Ph. 2b	Status
<b>AFM13</b> (CD30)	Monotherapy	Peripheral T-cell lymphoma (AFM13-202)					Registration Directed, Completed Enrollment
	+ Adoptive NK cells	CD30-positive lymphomas (AFM13-104)					Safety & POC, Enrolling
	+ Anti-PD-1	Hodgkin lymphoma (post BV) (AFM13-103)					POC, Study Completed
AFM24 (EGFR)	Monotherapy	Multiple solid tumors (AFM24-101)					Safety & POC, Enrolling
	+ Adoptive NK cells	Multiple solid tumors (AFM24-103)					Safety & POC, Enrolling
	+ Anti-PD-L1	Multiple solid tumors (AFM24-102)					Safety & POC, Enrolling
<b>AFM28</b> (CD123)	Monotherapy	Acute Myeloid Leukemia					IND-enabling, initiate in H2 2022
	+ Adoptive NK cells	Acute Myeloid Leukemia					Pre-IND
AFM32	Monotherapy	Solid tumors					Pre-IND, partnered with ROIVANT
Novel ICE®	Monotherapy	Multiple indications (Not disclosed)					Pre-IND, partnered with Genentech
		Not disclosed					Pre-IND, Affimed owned
	+ Adoptive NK cells	Multiple indications					Pre-IND

Monotherapy

C

Combination With Adoptive NK Cells

Combination With Other I-O Therapies

BV = brentuximab vedotin
CD = cluster of differentiation
EGFR = epidermal growth factor receptor
HL = Hodgkin lymphoma

ICE® = innate cell engager
IND = investigational new drug
NK = natural killer

**PD-1** = programmed cell death protein1

**POC** = proof of concept



# Our Experienced and Passionate Management Team is United by a Bold Vision to Stop Cancer From Ever Derailing Patients' Lives





Adi Hoess, MD, PhD Chief Executive Officer

**שברוחו** 



morphosys



Arndt Schottelius, MD, PhD

Chief Scientific Officer

kymab

morphosus

Genentech



Wolfgang Fischer, PhD Chief Operating Officer

SANDOZ





Andreas Harstrick, MD

**Chief Medical Officer** 









Denise Mueller
Chief Business Officer



Wyeth



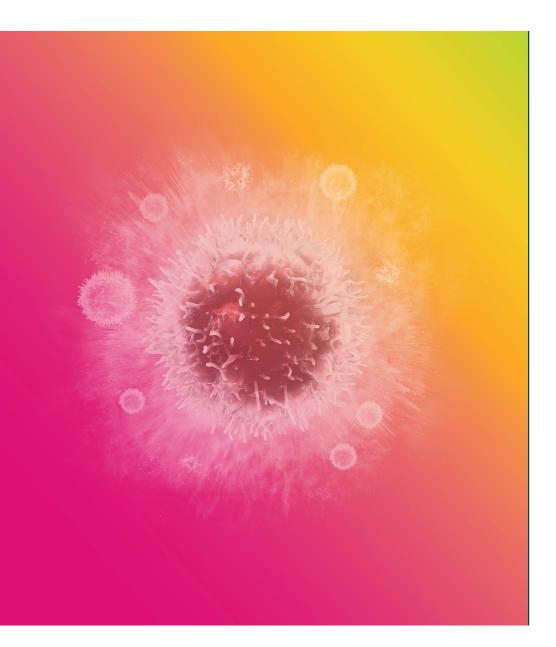
Angus Smith
Chief Financial Officer

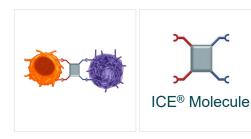












# Biology-Driven, Target-Specific Strategy

Fit-For-Purpose ROCK® Platform Targeted Combinations With I-O Therapies and NK Cells



# Affimed's ROCK® Platform Addresses Shortcomings of Other Technologies and Mechanisms





Affimed pursues targets where traditional mAbs and/or ADCs show little efficacy or limited therapeutic window



As a consequence, clinical success has been limited



ROCK® platform designed to succeed where others are limited

#### **CD16A** binding

 mAbs may suffer from low affinity and specificity to CD16A and are subject to serum IgG competition for CD16A, inefficiently recruiting NK cells/macrophages

#### **CD16** polymorphism

 mAbs binding to CD16 affected by V/F polymorphism leading to insufficient recruitment of a patient's own NK cells/macrophages

#### **Target expression**

 mAbs and ADCs require high target level expression

#### Safety/Toxicity

ADCs show limited or no therapeutic windows

#### **HER2** (polymorphism, target expression)

- mAb use restricted to high expressors (e.g. Herceptin)
- ADCs with side effects leading to discontinuations (e.g. Kadcyla)

#### CD30 (target expression)

- mAbs discontinued due to low efficacy (e.g. MDX-060)
- ADCs with best efficacy in high target expressors (e.g. Adcetris)

#### CD123 (target expression, toxicity)

- mAbs discontinued due to lack of meaningful efficacy (e.g. talacotuzumab)
- ADCs with severe side effects (e.g. SGN-CD123A)

- Selective for CD16A
- Binding unaffected by serum IgG competition
- Binding not affected by CD16 V/F polymorphism
- Efficacy maintained for low target expressors

ADC = antibody drug conjugate
CD = cluster of differentiation
F = phenylalanine
HER2 = human epidermal growth factor receptor 2

IgG = immunoglobulin G
mAb = monoclonal antibody
NK = natural killer
ROCK® = Redirected Optimized Cell Killing

V = valine



# **Unique Approach of Engaging NK Cells and Macrophages to Kill Tumor Cells**



## Affimed's Innate Cell Engagers (ICE®) bind CD16A to a differentiated epitope

CD16A is sufficient to activate NK cells and macrophages without a co-stimulatory signal → Differentiated vs. platforms that can only engage NK cells

#### Highly selective for CD16A →

No dilution and sink effect through neutrophils (CD16B+)

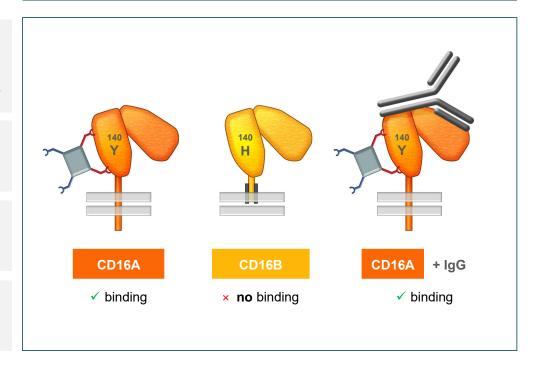
High affinity binding w/o serum IgG competition → Superior to mAbs and Fc-enhanced mAbs

Binding not affected by V/F polymorphism → Could be beneficial for outcomes

CD = cluster of differentiation
F = phenylalanine
ICE® = innate cell engager
IgG = immunoglobulin G

mAb = monoclonal antibody NK = natural killer V = valine

### ICE® Binding to CD16A



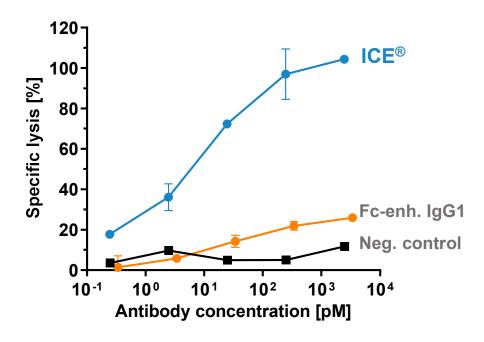


### ICE® Molecules Show Superior Tumor Cell Killing



### *In vitro* lysis of primary tumor cells\*

(4h calcein release cytotoxicity assay; allogeneic HD NK cells, E:T ratio 2.5:1)



# Affimed's ICE® Molecules Demonstrate:

**Higher cytotoxicity** compared to conventional and Fc-enhanced antibodies

**Cytotoxicity** against tumors with **low antigen expression** without attenuated potency

\*Source: Affimed data on file

E:T = effector to target

ICE® = innate cell engager
IgG = immunoglobulin G
NK = natural killer



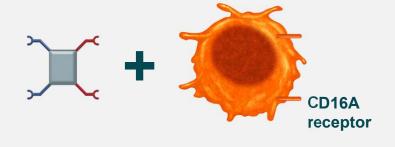
# Transformative Treatment Opportunities Created by Efficient Targeting of Adoptive NK Cells Through High Affinity Binding to CD16A



Prevalence of NK cells is associated with beneficial outcomes

Tumor targeting of NK cells can improve responses

ICE® co-administered with NK cells



# CAR-like NK cells ICE® pre-loaded NK cell

#### Co-Administered Features

- CD16A-specific
- High affinity
- Higher cytotoxicity
- High functionality
- Allogeneic or autologous

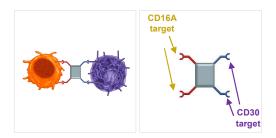
#### **Pre-Loaded Features**

- ICE® retention on NK cells
- Simple manufacturing
- Higher cytotoxicity



CAR = chimeric antigen receptor
CD = cluster of differentiation
ICE® = innate cell engager
NK = natural killer





### AFM13

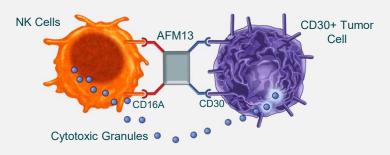
ICE® for CD30+ Lymphomas



# AFM13 Represents a Groundbreaking Immunotherapy Approach for Patients with CD30+ Lymphomas



### A new approach: activating the innate immune system in the fight against CD30+ lymphomas



- Redirects NK cells and macrophages to tumor cells by binding to CD16A on innate immune cells and CD30 on cancer cells
- Innate immune cells kill tumor cells via Antibody Dependent Cell-mediated Cytotoxicity (ADCC) or Antibody-Dependent Cellular Phagocytosis (ADCP)
- AFM13 could help restore NK cell function with the ability to recognize CD30+ lymphomas

**DLBCL** = diffuse large B cell lymphoma **FL** = follicular lymphoma

### HL = Hodgkin lymphoma CTCL = cutaneous T cell lymphoma PTCL = peripheral T cell lymphoma

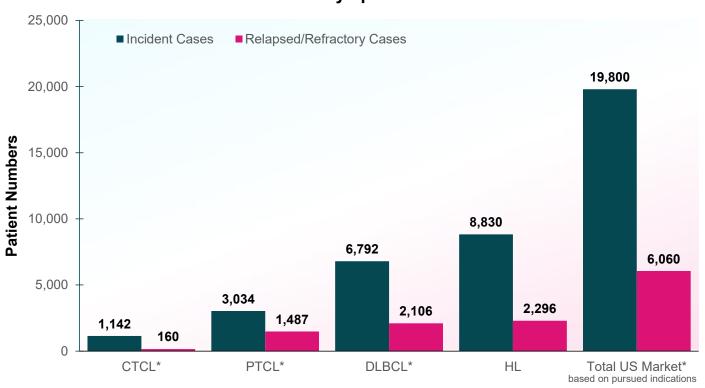
### Unmet need and market opportunities for CD30+ lymphomas

- CD30+ lymphomas comprise different subtypes: HL, PTCL, CTCL. DLBCL and FL
- Current treatment options largely chemo-based with limitations on duration of response (DoR) and high toxicity
- Despite limitations, there is a significant market opportunity: brentuximab vedotin (B.V.) annual revenue >\$1.1B in 2020 and growing
- Initial focus of AFM13 development in R/R patients with HL and TCL
- PTCL provides option for accelerated approval
- Expansion opportunity in different CD30+ lymphomas of AFM13 in combination with NK cells



# The CD30+ Lymphoma Market in the United States is Large, Yet Nearly One-Fourth of Patients Remain Underserved

#### **Cases of CD30+ Lymphomas in the United States**



2022 global therapeutic market forecast for lymphomas estimated at >\$10 billion USD

\* Data representative of CD30+ subsets only

**CD** = cluster of differentiation **CTCL** = cutaneous T-cell lymphoma

DLBCL = diffuse large B-cell lymphoma
HL = Hodgkin lymphoma
PTCL = peripheral T-cell lymphoma
USD = US dollars



# **AFM13 Clinical POC Data Holds Promise and Hope for Patients Currently Left Behind**



#### **Monotherapy**

#### Phase 1/2a: Single agent anti-tumor responses

- In TCL 42% ORR, n=141
- In HL 16.6%-23% ORR; n>50, different studies<sup>2,3</sup>
- Reponses seen in patients pretreated with B.V. and PD-1

#### Ongoing Phase 2 registration directed study in PTCL

- ~110 patients, q1w AFM13:
  - Cohort A: R/R PTCL with high CD30 (≥10%)
  - Cohort B: R/R PTCL with low CD30 (>1% to <10%)</li>
- Interim Analysis: Positive outcome; study continues with cohorts A & B merged
- Enrollment completed January 2022

#### + Anti-PD-1

- HL P1b data: 88% ORR, 42%/46% CR rate (local/central read); n=24<sup>4</sup>
- All patients pretreated with B.V.

#### + Adoptive NK Cells

- P1/2 NK cell therapy combination at MDACC enrolling heavily pretreated patients (HSCT, B.V., PD-1)
- Treat 40 patients at the highest dose to establish safety and POC in CD30+ lymphoma (HL, TCL, BCL)
- Positive interim data on 19 patients presented in December 2021<sup>5</sup>

**POC** = proof of concept

AFFIMED

<sup>1.</sup> Sawas A. et al. Clinical and biological evaluation of the novel CD30/CD16A tetravalent bispecific antibody (AFM13) in relapsed or refractory CD30-positive lymphoma with cutaneous presentation: a biomarker phase 1b/lia study (NCT03192202). Presented at the ASH Virtual Annual Meeting; December 5-8, 2020. 2. Rothe A. et al. Blood. 2015;125(26):4024-4031). 3. Sasse S. et al. AFM13 in patients with relapsed or refractory Hodgkin Lymphoma: Final results of an open-label, randomized, multicenter phase II trial. Presented at the ASH Virtual Annual Meeting; December 5-8, 2020. 4. Bartlett NL. et al. Blood. 2020;136(21):2401-2409. 4. Bartlett NL. et al. A phase 1b study of AFM13 in combination with pembrolizumab in patients with relapsed or refractory Hodgkin lymphoma Blood. 2020;136(21):2401-2409. 5. Affimed AFM13 + NK Cells, Investor Event, December 9, 2021.

### The First Clinical Study of an ICE® in Combination with NK Cells

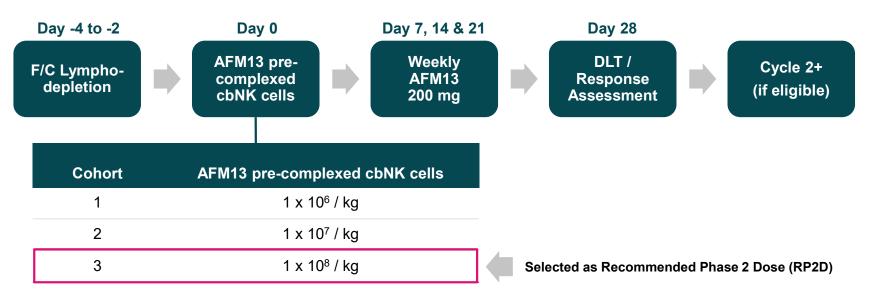
Phase 1/2 Study of AFM13 Precomplexed NK Cells to Treat Patients with R/R CD30+ Lymphoma

**Phase 1/2 (AFM13-104):** Dose-escalation study of cbNK cells combined with AFM13 in patients with R/R CD30+ lymphoma: Protocol amendment approved to allow for enrollment of up to 40 patients at the highest dose and more than two cycles

cbNK cells: Pre-activated with IL12/15/18, expanded with uAPC K562 feeder cells and pre-complexed with AFM13

Primary Objective: Safety, Recommended Phase 2 dose (identified)

Secondary Objectives: Response rates (ORR, CR, PR), DoR, EFS, OS



ClinicalTrials.gov Identifier: NCT04074746.

**cbNK** = cord blood derived natural killer cells **CD** = cluster of differentiation

CR = complete response
DoR = duration of response
EFS = event-free survival
IL = interleukin

ORR = overall response rate
OS = overall survival
PR = partial response
R/R = relapsed refractory



#### AFM13-104 Initial Clinical Observations: 100% ORR at RP2D



#### 13 patients treated at highest dose level (RP2D: 1x108 cbNK/kg) after cycle 1

- 12 HL patients, 1 NHL patient
- 5 CRs, 8 PRs
- CR observed in patient who had failed CD30 CAR-T
- Patients are eligible for a second treatment cycle
- 3 out of 3 patients with at least 6 months follow up remain in CR (as of December 9, 2021) \*

#### **Heavily pre-treated patients**

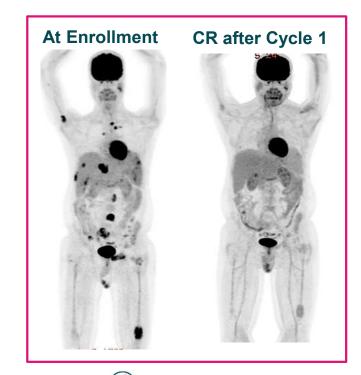
- Patients had a median of 6 prior lines of therapy
- 13/13 patients were treated with BV; 12/13 patients were treated with anti-PD-1

#### Therapy well tolerated

• No events of CRS, neurotoxicity or GvHD

**BV** = brentuximab vedotin **CR** = complete response **HL** = Hodgkin lymphoma

RP2D = recommended phase 2 dose



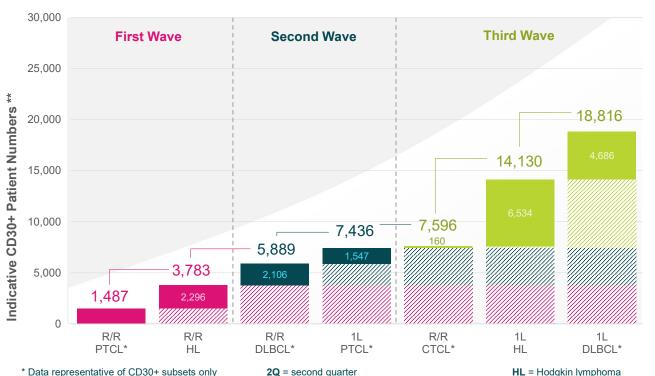


<sup>\*</sup> One patient on maintenance pembrolizumab

### Additional Near Term Development Opportunities for AFM13 to **Provide Meaningful Benefit to Patients in Need**



#### AFM13 has potential to benefit patients across many indications



- \* Data representative of CD30+ subsets only
- \*\* Source: Global Data; Kantar & the Leukemia and Lymphoma Society

2H = second half

- **CD** = cluster of differentiation
- **DLBCL** = diffuse large B-cell lymphoma
- **EU** = European Union
- FDA = US Food and Drug Administration

NK = natural killer

PTCL = peripheral T-cell lymphoma

**ROW** = rest of world

**US** = United States

#### **Market Potential**

#### Monotherapy:

Addresses PTCL

#### NK cell combo:

- Addresses HL, PTCL, CTCL, and DLBCL
- Market research indicating premium above **CAR-T** pricing
- Market potential of AFM13 + NK cell combo stands to double when registered in EU. Asia. and ROW

#### **Value Inflection Points**

#### Monotherapy:

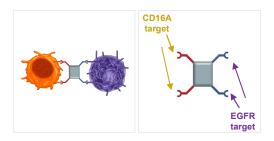
Enrollment completed; data expected 2H 2022

#### NK cell combo:

- Data updates expected in 2Q and 2H 2022 at medical conferences
- FDA meeting expected in 2022 to discuss potential registration directed study







### AFM24

ICE® in EGFR+ Solid Tumors

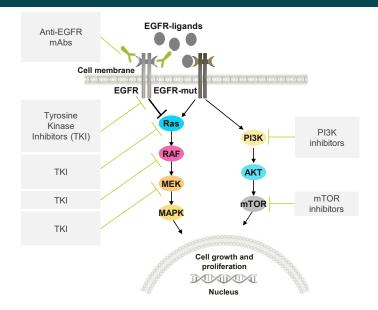


# AFM24: Distinctive Approach to EGFR+ Tumors with Potential to Bring Benefit to a Broad Range of Patients



EGFR is widely expressed in solid tumors: Colorectal, lung, ovarian, gastric, breast, pancreas, etc. Incidence of >1,000,000 patients in EU and US with CRC, lung and gastric cancers

### Current therapies rely on disruption of the EGFR signaling cascade



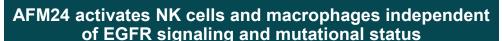
### Limitations of current EGFR targeting therapies

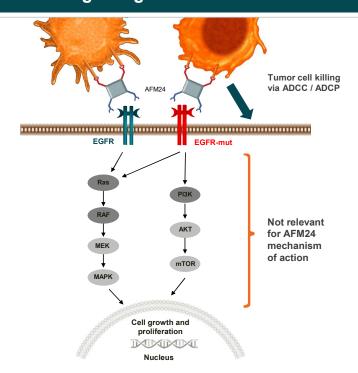
- Standard therapies (TKIs or mAbs) cannot address broad patient populations due to primary mechanism signal inhibition
- Resistance in the EGFR signaling cascade by activation of alternate pathways or downstream mutations limit use
- Dose limiting side effects lead to treatment discontinuation or non-optimal dosing
- Many indications with poor prognosis, e.g., mCRC:
   14% 5-year survival rate

<sup>1.</sup> More Cancer Types – SEER Cancer Stat Facts. Accessed January 5, 2021. https://seer.cancer.gov/statfacts/more.html. 2. LuCE Report on Lung Cancer. Accessed January 5, 2021. https://www.lungcancereurope.eu/wp-content/uploads/2017/10/LuCE-Report-final.pdf. 3. International Agency for Research on Cancer. Europe. Available from: https://gco.iarc.fr/today/data/factsheets/populations/908-europe-fact-sheets.pdf. 4. ECIS – European Cancer Information System. Accessed January 5, 2021. https://ecis.jrc.ec.europa.eu/explorer.php?\$0-0\$1-All\$2-All\$4-1,2\$3-0\$6-0,85\$5-2008,2008\$7-7\$CEstByCountry\$X0\_8-3\$X0\_20-No\$CEstBySexByCountry\$X1 8-3\$X1 19-AE27\$X1 -1-1\$CEstByIndiByCountry\$X2 8-3\$X2 19-AE27\$X2 20-No\$CEstRelative\$X3 8-3.



# With an MOA Independent of EGFR Signaling, AFM24 has Potential to Disrupt the Treatment Paradigm and Overcoming Limitations





### Preclinical data presented at AACR 2020<sup>1</sup> & 2021<sup>2</sup> demonstrates key features of AFM24

- MOA leverages the power of the innate immune system and is distinctive from all current EGFR-targeting therapies
- Option to patients currently not eligible for approved treatments due to resistance based on mutations in EGFR pathway
- ADCC even at low EGFR density and in the presence of IgG1
- Induces a prominent ADCP response against tumor cells with KRAS mutations and medium or high EGFR levels
- In combination with adoptive NK cells, leads to dosedependent tumor regression in a mouse xenograft model

mAb = monoclonal antibody E:T ratios = effector-to-target ratios MOA = mechanism of action
ADCP = antibody-dependent cellular phagocytosis

1. Reusch U. et al. AFM24, a bispecific EGFR/CD16A Innate Cell Engager with the potential to overcome resistance to current targeted treatments for EGFR-positive malignancies (AACR Virtual Annual Meeting, June 2020)

2. Jens Pahl et. al. AFM24 is a novel, highly potent, tetravalent bispecific EGFR/CD16A-targeting Innate Cell Engager (ICE®) designed for the treatment of EGFR-positive malignancies (AACR Virtual Annual Meeting, April 2021)



# Experts Believe AFM24 has the Potential to Improve Efficacy and Become a New Standard of Care



#### **Key benefits of AFM24**

### CD16A-specifc ICE® molecule with potent ADCC and ADCP

Novel dual mode of action and high potency, overcoming limitations of mAbs (V/F polymorphism)

#### Strong preclinical safety profile

No dosing limitations expected and broad set of options for combinations

#### Substantial market opportunity

Activity against EGFR-expressing tumors regardless of mutation

66

If I were to see that this agent added activity to a chemotherapy backbone, I would use this in all eligible patients.<sup>1</sup> "

Leveraging NK cells in CRC has been a holy grail for a novel therapy.1 66

I would absolutely enroll my patients in a clinical trial for this agent.<sup>1</sup>

1. Physician Interviews; ClearView Analysis

**ADCC** = antibody-dependent cellular cytotoxicity **ADCP** = antibody-dependent cellular phagocytosis

CD = cluster of differentiation CRC = colorectal cancer

EGFR = epidermal growth factor receptor

ICE® = innate cell engager
mAb = monoclonal antibody
NK = natural killer

V/F = valine/phenylalanine



# AFM24 Status: Safety, Pharmacodynamic Activity, and Correlative Data Allowed RP2D Determination → P2 Expansions Initiated



Cohort 2 Cohort 3 **Cohort 4 Cohort 5 Cohort 6** Cohort 1 Cohort 7 Status 720 mg 80mg 160mg 320mg 480mg 14mg 40mg recruiting

**Deciding Factors** 

#### Safety

Safety profile continues to be good – no dose limiting toxicities observed at 480 mg

PK / Exposure

CD16A RO

Leveling off with 320 mg and 480 mg indicating sufficient saturation of CD16A on peripheral NK cells for effective tumor cell killing

Proportionality of dose and exposure at 320 mg and 480 mg implies saturation of TM elimination

Supporting

#### **Cytokines**

Consistent elevation of cytokines (e.g., TNF-α, IFN-γ) with doses ≥ 160 mg

NK Cell Activation Marker

Expression of NK cell activation markers with doses ≥ 160 mg

**CD** = cluster of differentiation

**IFN** = interferon

NK = natural killer

P2 = phase 2 PK = pharmacokinetic RO = receptor occupancy RP2D = recommended phase 2 dose
TM = target mediated
TNF = tumor necrosis factor



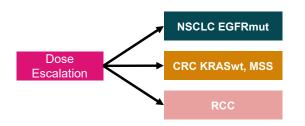
# AFM24 Broad Early Development: Monotherapy & Combination Initiating 3 Trials w/ Different Treatment Schedules Investigating 7 Different Indications



#### AFM24-101 Monotherapy

Dose escalation & expansion study (AFMD)

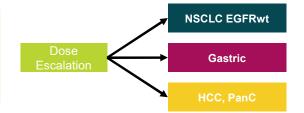
Exploring activity of AFM24 monotherapy in tumors with favorable immune status



# Broad AFM24 development aiming for high PoS to generate meaningful clinical data

#### AFM24-102 I-O combination

Dose escalation & expansion study (AFMD, Roche) Exploring potential synergistic effect of coactivation of innate and adaptive immune systems



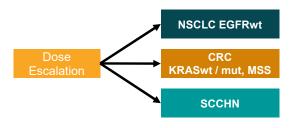
#### 3 different study designs

- Monotherapy
- Combination with anti PD-L1
- Combination with NK cells

#### AFM24-103 NK cell combination

Dose escalation & expansion study (AFMD, NKGEN)

Exploring potential of autologous NK cells to enhance AFM24 activity in tumors with unfavorable immune status



#### 7 different, selected indications

 Indications selected to maximize PoS

CRC = colorectal cancer
EGFR = epidermal growth factor receptor
I-O = immuno-oncology
Mut = mutant

NK = natural killer
NSCLC = non-small cell lung cancer
RAS = rat sarcoma viral oncogene
RCC = renal cell carcinoma

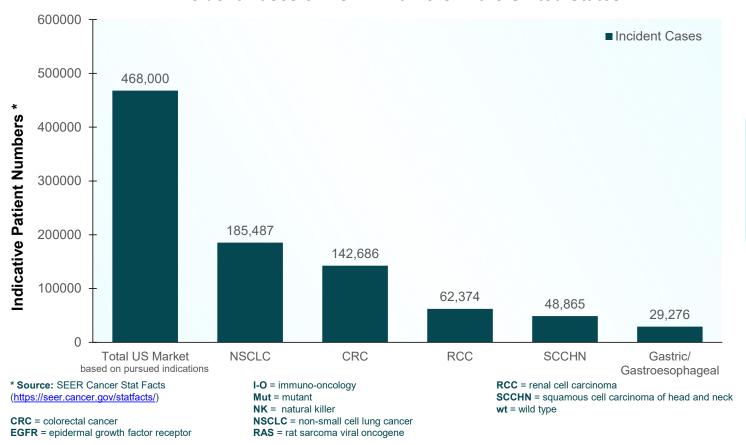
SCCHN = squamous cell carcinoma of head and neck wt = wild type



### **AFM24** Represents a Large Market Opportunity by Targeting Multiple Solid Tumor Indications, Many with Poor Prognosis



#### Incident Cases of EGFR+ Tumors in the United States



2022 global therapeutics market forecast for EGFR+ tumors estimated at

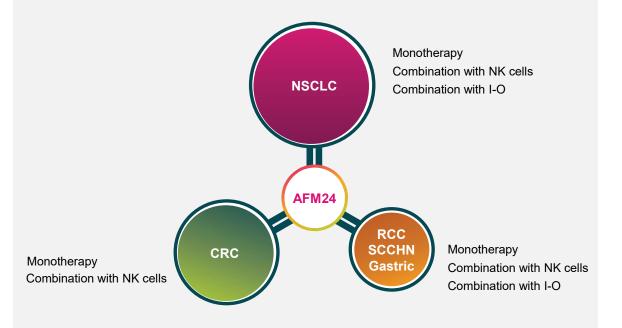
>1.5 million patients



# Affimed Is Undertaking A Multipronged Treatment Approach Across a Wide Range of EGFR+ Tumors



Affimed is Pursuing a Multipronged Therapeutic Approach for AFM24 in NSCLC, CRC, and Other EGFR+ Tumors



#### **Value Inflection Points**

#### Monotherapy:

- Dose escalation data to be submitted for medical conference in 1H 2022
- Data from expansion cohorts expected in 2022

#### NK cell combo:

Data updates expected in 2022

#### Anti-PD-L1 combo:

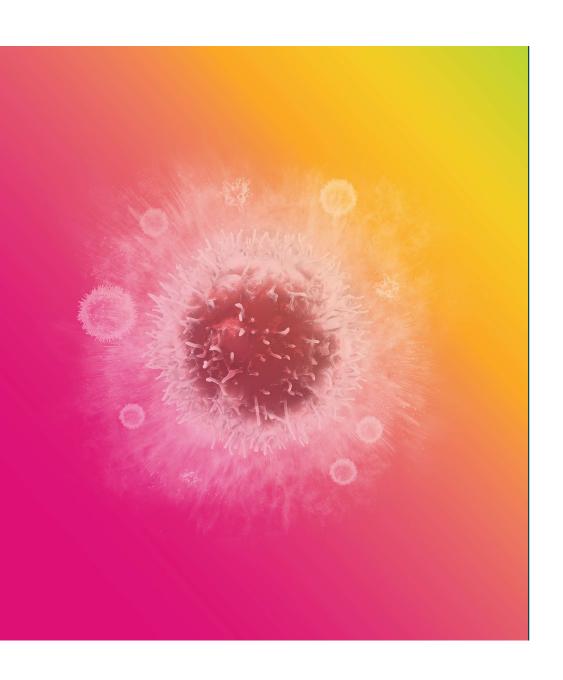
Data updates expected in 2022

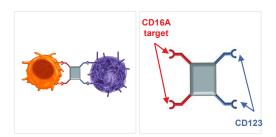
1H = first half
CRC = colorectal cancer
EGFR = epidermal growth factor receptor
I-O = immuno-oncology

Mut = mutant
NK = natural killer
NSCLC = non-small cell lung cancer
PD-L1 = programmed death ligand 1

RAS = rat sarcoma viral oncogene
RCC = renal cell carcinoma
SCCHN = squamous cell carcinoma of head and neck







### AFM28

ICE® in AML & MDS



# Lack of Effective Treatments to Prevent and Treat Relapse and High Toxicity of SOC Drugs Result in Major Unmet Needs in AML



**Poor Outcomes** 

AML life-threatening condition with high unmet medical need

Overall patient outcomes remain very poor, US 5-year survival ~30%

Newly diagnosed AML: 42,000 annual incidence (7MM); 60% of patients are primary refractory or

relapse within 1 year

**R/R AML:** 1-year OS: 29%, 5-year OS: 11%

Lack of effective treatments

Poor response to chemotherapy: Primary induction failures, early relapses

Measurable Residual Disease (MRD): High rates of relapse

Limited options for R/R AML

**Toxicity of treatment** 

Significant toxicity of SOC induction chemotherapy and allo-HSCT

Poor quality of life from treatment-related toxicity

Primarily a disease of elderly (median age at diagnosis 67 years), majority of patients cannot tolerate standard treatment

Allo-HSCT = allogeneic hematopoietic stem cell transplant

**AML** = acute myeloid leukemia

OS = overall survival

SOC = standard of care



### **AFM28: A Differentiated Approach to Targeting CD123**



#### AFM28

• AFM28 is a bispecific, tetravalent CD123 and CD16A-targeting ICE® based on the ROCK® platform

#### Status

Currently in IND-enabling development; IND submission expected in 1H 2022

#### Highlights

- Preclinical data demonstrate that AFM28 induces tumor cell lysis more potently than conventional anti-CD123 antibodies, even at low CD123 expression
- 100-fold more potent NK cell activation in an ex vivo analysis, compared to Fc-enhanced IgG1 antibodies
- In a preclinical toxicology study, AFM28 was well-tolerated and exhibited the expected pharmacodynamic activity in cynomolgus monkeys

#### Strategy

- Follow a 2-pronged approach in developing AFM28:
  - Monotherapy
  - In combination with allogeneic, adoptive NK cell transfer

#### AFM28 value inflection points in 2022

- IND-filing: Submission planned in 1H 2022
- Clinical study: Initiation of clinical study planned in 2H 2022

1H = first half

2H = second half

**CD** = cluster of differentiation

ICE® = innate cell engager

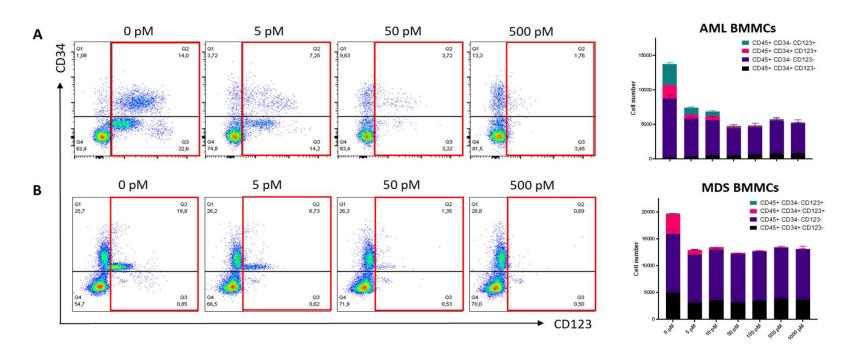
IgG = immunoglobulin G
IND = investigational new drug
NK = natural killer
ROCK® = Redirected Optimized Cell Killing



# AFM28 Eliminates CD123<sup>+</sup> Tumor Cells from Patient Bone Marrow, Sparing CD34<sup>+</sup>/CD123<sup>-</sup> cells



Ex vivo depletion of CD123+ tumor cells in bone marrow of AML and MDS patients by AFM28 plus allogeneic NK cells



Multi-color FCM analysis of (A) AML and (B) high-risk MDS samples treated with AFM28 and allogeneic healthy donor NK cells (E:T ratio 1:1) for 24 hours. Target-positive cells are very efficiently depleted (red boxes), while the putative HSCs (CD34+/CD123-) compartment and stromal bone marrow (CD45+/CD34-/CD123-) cells remain largely unaffected. 0 pM are NK cells only.



# Multiple Potential Inflection Points in 2022 Strong Cash Position Enables Focused Execution



#### AFM13

- Monotherapy: Enrollment completed in January 2022; topline data in 2H 2022
- NK cell combination: Dose escalation completed; expansion cohort enrollment ongoing at RP2D; meeting expected with FDA

#### AFM24

- Monotherapy: Determined RP2D, expansion cohorts enrolling, updates in 2022
- NK cell combination: Study initiated with updates in 2022
- Anti–PD-L1 checkpoint inhibitor combination: Study initiated with updates in 2022

#### AFM28

- Initial preclinical data presented at ASH 2021; IND filing expected in 1H 2022
- Initiation of first-in-human clinical study expected in 2H 2022

#### ROCK®, ICE® preclinical work/Genentech and Roivant Sciences collaborations

- Novel Affimed-owned ICE® generation based on ROCK® platform
- Publications on MOA (NK cell and macrophage activation) of ICE®
- Potential milestone payments from partnered programs

#### Cash runway into 2H 2023

2H = second half FDA = US Food and Drug Administration ICE® = innate cell engager MOA = mechanism of action
NK = natural killer
PD-L1 = programmed death ligand 1

**ROCK**® = Redirected Optimized Cell Killing **RP2D** = recommended phase 2 dose

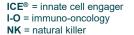


# **Activate Untapped Power: Our Blueprint for Delivering Transformative Medicines**



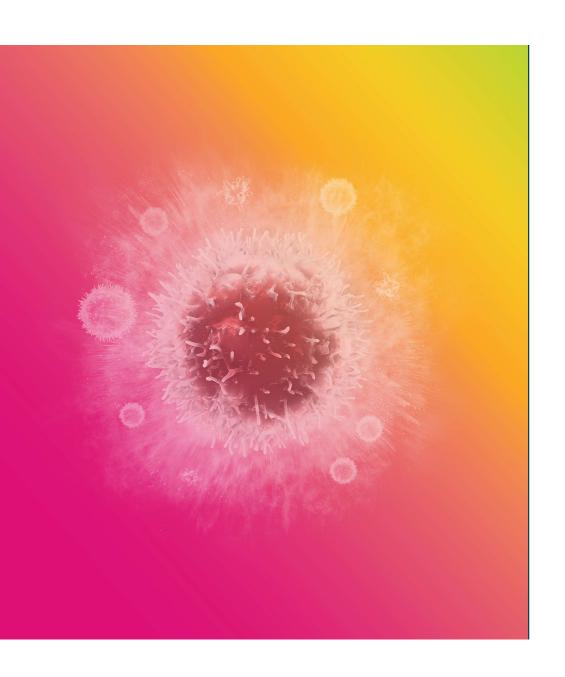


**EXPAND AND ACCELERATE WITH PARTNERSHIPS** 









# Every Patient Deserves More Options. Every Patient Deserves Another Chance.



#### **Our Mission**

We are a team of innate immunity experts who are unrelenting in our efforts to change the meaning of cancer.

### Our Vision To stop cancer from ever derailing patients' lives.





The first patient to receive AFM13 to treat a CD30+ lymphoma with cutaneous presentation

