



# HARNESSING THE POTENTIAL OF THE INNATE IMMUNE SYSTEM FOR ONCOLOGY

**NASDAQ: AFMD** 

January 2024

### **Forward-Looking Statements**



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, the potential of acimtamig, AFM24, AFM28 and our other product candidates, the value of our ROCK® platform, the safety and efficacy of our product candidates, the potential of the LuminICE-203 study design to support accelerated approval by the FDA, 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 macroeconomic trends that may affect the industry or us, such as the instability in the banking sector experienced in the first quarter of 2023, impacts of the COVID-19 pandemic, the benefits to Affirmed of orphan drug designation, the impact on our business by political events, war, terrorism, business interruptions and other geopolitical events and uncertainties, such as the Russia-Ukraine conflict and, the risks, fact that the current clinical data of acimtamig in combination with NK cell therapy is based on acimtamig precomplexed with fresh allogeneic cord blood-derived NK cells from The University of Texas MD Anderson Cancer Center, as opposed to Artiva's AlloNK and other uncertainties and other factors described under the heading "Risk Factors" in Affirmed's filings with the Securities and Exchange Commission (the "SEC").

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## Why Invest in Affimed Now? 3 Clinical Assets with Multiple Near-Term Milestones



### Lead Asset - Acimtamig (AFM13) Demonstrated Unprecedented Efficacy Against CD30+ Lymphomas

Acimtamig + NK cells: entering late-stage clinical dev; addresses r/r HL and PTCL global population of 10k

- Outstanding efficacy: 97% ORR and 78% complete response rate in 32 late-stage HL patients (AFM13-104)
- Extraordinary safety profile: No CRS, GVHD or ICANS observed
- Ph 2 LuminICE-203 (Acimtamig + AlloNK®) first two cohorts dosing patients

### **Two Additional Clinical Assets**

- Second program, AFM24, showed single agent activity including 2 PRs and multiple SDs in EGFRmut NSCLC
- AFM24 is being evaluated in combination with atezolizumab (AFM24-102) in a Ph 2 clinical trial in NSCLC; 4 responses\* and 73% DCR NSCLC EGFR-wt (n=15)
- Third program, AFM28 in AML, shows differentiated profile in vitro and in vivo; currently enrolling a Ph 1 monotherapy study

## Multiple Upcoming Milestones; cash of €98m with runway into 2025

Program	Milestone	Timing
LuminICE-203	Initial data update	H1 2024
AFM24-102	PFS data update from NSCLC EGFRwt cohort	H1 2024
AFM24-102	Data update from NSCLC EGFRmut cohort	H1 2024
AFM28-101	Progress updates from dose escalation study (safety, dose levels)	H1 2024

### **Pipeline Strengthened by Key Partnerships**















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<sup>\* 2</sup> confirmed PRs, 1 confirmed CR and 1 unconfirmed PR awaiting confirmation

## Affimed's Technology is the Most Advanced Platform Based on Specific Engagement of Innate Immune Cells



## ROCK® Platform addresses key limitations of traditional mAbs or ADCs

**The problem:** mAbs inefficiently recruit patient's own NK cells and/or macrophages due to:

- · Low binding affinity and specificity
- V/F polymorphism
- · High requirement for target expression

Affimed's solution: ROCK® Platform specifically targets CD16A using our customizable ICE® (innate cell engager) molecules.

- ICE® molecules have high affinity to CD16A and bind at a novel epitope outside the IgG binding epitope
- ICE® therapies have shown to have a good safety and tolerability profile
- Capable of bivalent NK-cell binding and does not induce nonspecific NK-cell activation
- Binding not impacted by V/F polymorphism

### ICE® versus NK cell engager (NKE)

AFMD has the most advanced platform based on specific engagement of innate immune cells – nearly 400 patients have been treated with our proprietary ICE® molecules to date

### ICE® vs. NKE

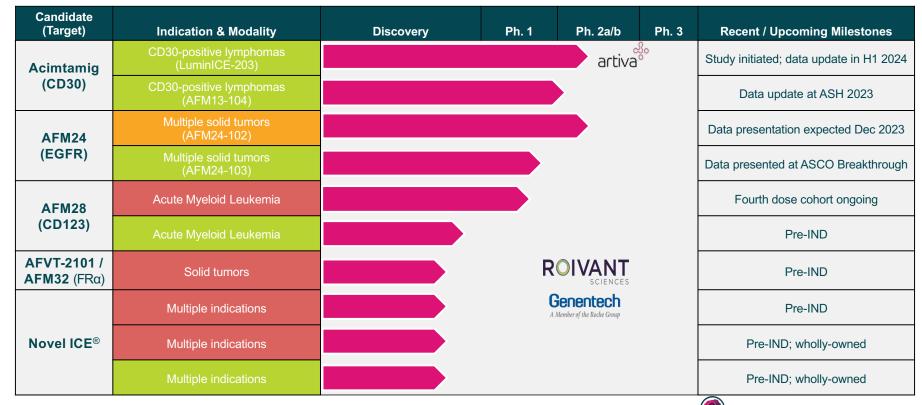
	ICE®	NKE
Binding sites to tumor target	2	1
High affinity binding sites to NK cells	2	1
Monotherapy data	yes	yes
Combo data with NK cells	yes	no
Combo data with CPI	yes	no
Safety	yes	yes



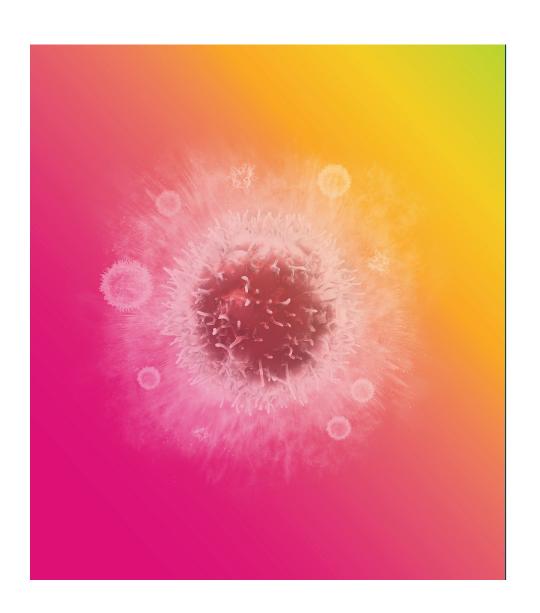
### A Growing Pipeline Poised to Advance the Treatment of Cancer

Combination with Adoptive NK Cells (allogeneic)

Monotherapy



Combination with anti-PD-L1



## **Acimtamig**

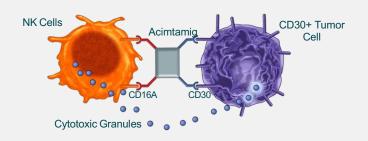
ICE® for CD30+ Lymphomas



# Acimtamig: Unique Mechanism of Action Addressing Significant Unmet Need with Large Market Opportunity



## Acimtamig restores NK cell function to recognize CD30+ lymphomas



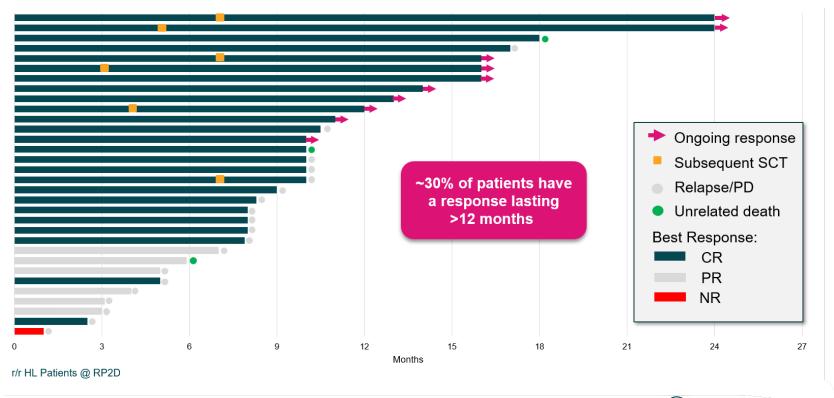
- Acimtamig redirects NK cells and macrophages to tumor cells by binding to CD16A on innate immune cells and CD30 on cancer cells
- Acimtamig activates NK cells and macrophages through CD16A to kill tumor cells via ADCC and ADCP, respectively

## Unmet need and market opportunities for CD30+ lymphomas

- CD30+ lymphomas comprise different subtypes: HL, PTCL, CTCL, DLBCL and FL
- Initial focus of acimtamig development in R/R patients with HL and PTCL
- 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 > \$1.3B in 2021 and growing



## AFM13-104: Median EFS of 9.8 Months, Median DOR of 8.8 Months and 30% of Patients Remained in Remission for More than 12 Months





# **Acimtamig + NK Cells Shows Unprecedented ORR and CR Rates in Double Refractory HL Patients**



- All patients were heavily pre-treated and doublerefractory to BV and CPIs
- All patients were refractory to their most recent treatment
- Well managed safety profile with no cases of CRS, ICANS or GVHD





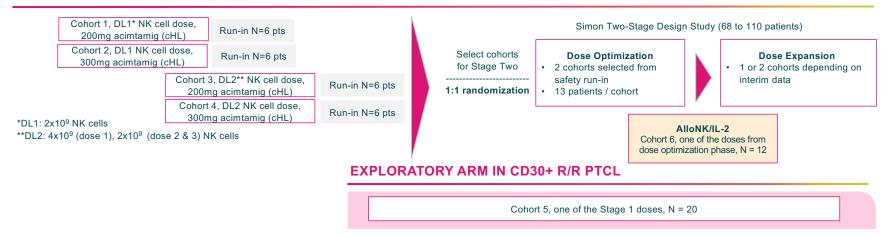
Acimtamig + NK cells is the most promising therapy being studied in HL patients who are relapsed or refractory to BV & CPIs

	AFM13-104 (NK cell combo) HL patients @ RP2D
Number Treated	32
No. Prior Lines Therapy (range)	7 (1-13)
Prior BV	100%
Prior CPI	100%
Prior SCT	63%
Response to Most Recent Treatment	0%



# LuminICE-203 Study Design: Aligned with FDA Feedback [to support potential accelerated approval]

### PHASE 2 TRIAL, R/R HL (SIMON TWO-STAGE DESIGN)



### STUDY TREATMENT REGIMEN, UP TO 3 CYCLES



# Acimtamig + AlloNK® Cells: Ph 2 LuminICE-203 Study Data Expected in H1 2024



- Combination therapy of acimtamig + AlloNK will evaluate up to 134 r/r HL and 20 r/r PTCL patients
- Initial data evaluating active doses expected in H1 2024
- Primary endpoints: Assess the antitumor activity by objective response rate (ORR) including complete responses (CR) and partial responses (PR)
- Secondary endpoints: Assess efficacy, duration of response (DOR), safety and tolerability and immunogenicity of the combination therapy
- Includes an exploratory cohort of CD30-positive r/r PTCL patients



# LuminICE-203 Builds on Strong Phase 1/2 Data with Accelerated Approval Potential Confirmed by FDA Interactions





**Evolving HL Landscape** with Unmet Needs

 There is a void of viable agents for r/r patients due to the emergence of patients who are double refractory to BV and CPIs



**Remarkable Efficacy** 

 Acimtamig + NK cells have shown 97% ORR, 78% CR in r/r HL with a well manageable safety profile



LuminICE-203 Underway with FDA Fast Track Designation

- Study enrolling with dosing of first two cohorts underway
- Expect initial data update from run-in phase H1 2024
- Includes a PTCL cohort to establish POC
- Type C meeting achieved alignment on new cohort to assess contribution of components



**Attractive Opportunity** 

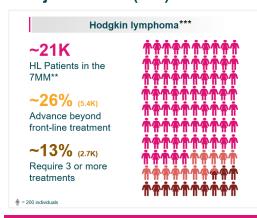
Acimtamig + AlloNK<sup>®</sup> has the potential to address a ~\$3 billion market opportunity in r/r HL & PTCL where new treatment options are needed



# A Significant Opportunity Exists to Address R/R HL in the 7 Major Markets with Additional Potential in R/R PTCL



## Cases and Percentage of R/R CD30+ HL in the 7 Major Markets (MM)\*





#### CD30+ R/R HL

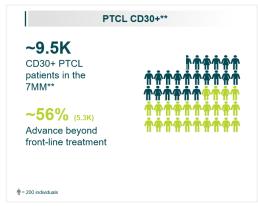
#### Acimtamig + NK cell combo:

- · Addresses the challenges of R/R HL
- Initial market value in HL is in the ≥3-line setting
- Additional HL value with earlier lines of treatment
- Market research indicating premium above CAR-T pricing

Data as of April 2023; \*7MM include US, EU5 (France, Germany, Italy, Spain, United Kingdom), and Japan \*\*Source: SEER, WHO Globocan, Global Data; Kantar; Affimed Internal Research

\*\*\* Source: SEER, WHO Globocan, Global Data; Kantar; Leukemia & Lymphoma Society; Lymphoma Research Foundation; Laribi, Oncologist. 2018 Sep; 23(9): 1039–1053.; Brossard, Blood (2014) 124 (19): 2983–2986.; Sabattini, Haematologica. 2013 Aug; 98(8): e81–e82.; Savage, Blood. 2008 Jun 15;111(12):5496-504; Affined Internal Research

## Cases and Percentage of R/R CD30+ PTCL in the 7 Major Markets (MM)\*



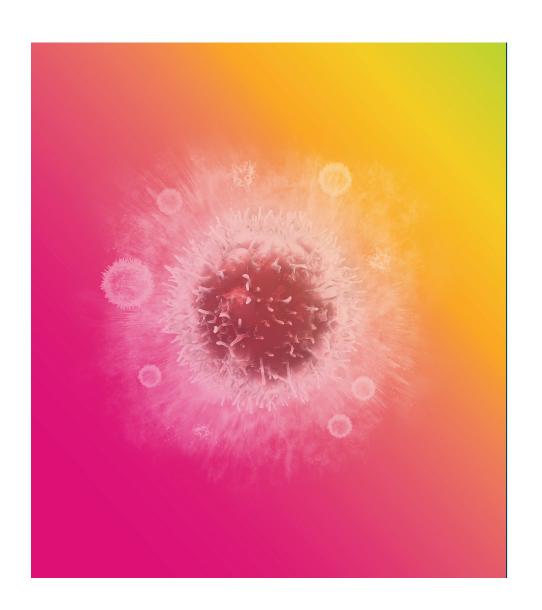


#### CD30+ R/R PTCL

#### Acimtamig + NK cell combo:

- Addresses R/R CD30+ PTCL
- Limited treatment options exist for R/R PTCL
- Market research indicating premium above CAR-T pricing





### AFM24

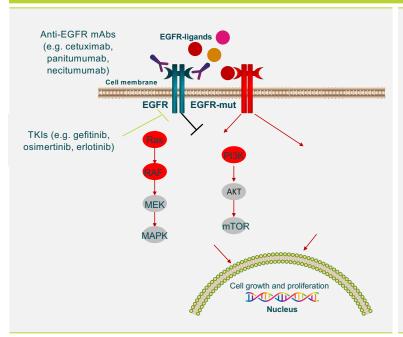
ICE® in EGFR+ Solid Tumors



# AFM24 is an EGFR/CD16A Tetravalent Bi-Specific Antibody with a Novel Approach to Treating EGFR-Expressing Solid Tumors



## AFM24 with its differentiated mode of action unleashes the potential of Innate Immunity in treating EGFR-expressing solid tumor indications

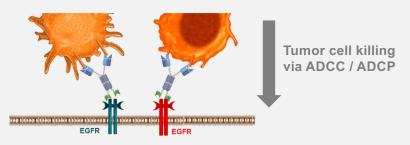


#### **Current standard of care drugs:**

- Disruption of the EGFR signaling cascade
- Resistance → activation of alternate pathways / downstream mutations
- Dose-limiting toxicities

#### The promise of AFM24's differentiated MoA\*:

- Docking to EGFR only, no dependence on EGFR signaling
- Efficacy toward cells with mutated EGFR-signaling pathway
- Activation and recruitment of both the innate and adaptive immune cells
- Differentiated safety profile



Disclaimer: The image provides an overview of selected EGFR-targeting therapeutic agents and does not represent an exhaustive summary.



<sup>\*...</sup> Based on in vitro and in vivo data in mouse, and cynomolgus monkeys and early clinical data (Wingert et al. mAbs 2021;13: 1950264). **TKI** = tyrosine kinase inhibitor.

### AFM24 Path Forward: NSCLC in Combination with Atezolizumab



## AFM24, a first in class ICE® for EGFR-positive solid tumors

- Early clinical program:
  - Demonstrated safety as monotherapy and in combinations (NK, PD1)
  - Showed anti-tumor activity as a monotherapy and in combinations
  - Provided clinical validation that triggering innate immunity activates adaptive immunity
- Highest efficacy seen in NSCLC across a range of indications evaluated:
  - Data in NSCLC EGFRwt with AFM24 in combination atezolizumab is highly encouraging
  - Monotherapy activity seen in EGFRmut NSCLC led to inclusion in AFM24-102 trial

AFM24 in combination with atezolizumab has potential to demonstrate a meaningful clinical benefit with a favorable safety profile in both EGFRwt and EGFRmut NSCLC patient populations



<sup>\* 3</sup> of 4 response awaiting confirmation per RECIST 1.1

# AFM24-102 NSCLC *EGFR*wt Cohort Patient Characteristics & AFM24 Related Treatment-Emergent Adverse Events



Patient Characteristics NSCLC EGFRwt cohort	N=17*
Age (years) Median-Range	66 (45-75)
Sex n (%) • Male • Female	14 (82.4) 3 (17.6)
Race n (%) • White • Asian	8 (47.1) 9 (52.9)
ECOG PS (n, %)  • 0  • 1	2 (11.8) 15 (88.2)
No. Prior Lines of treatment Median (range)	2 (1-5)
Prior CPI Response to CPI Refractory to CPI**	<b>100%</b> 4 PR / 7 SD 6

Most Relevant AFM24 Related Treatment Emergent Adverse Events  NSCLC EGFRwt cohort	N=17
Asthenia G1	1 (1)
AST elevation G1 G2	2 (2) 1 (1)
ALT elevation G1 G2	3 (2) 2 (1)
Erythematous rash G1 G2	3 (3) 1 (1)
Infusion related reaction G1 G2 G3	3 (2) 2 (2) 1 (1)

- AFM24 has demonstrated to be safe and well-tolerated as both a monotherapy and in combination
- Combination with atezolizumab has not led to unexpected toxicity: Observed toxicity in line with toxicity profile of the individual agents



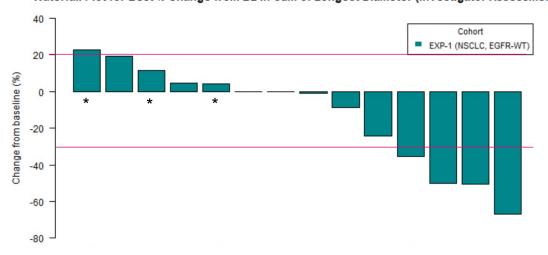
<sup>\*</sup>Overall 17 pts were recruited into the cohort, 15 pts are included in the FAS (full analysis set) for efficacy as per protocol.

<sup>\*\*</sup>All patients ultimately had progressed on previous CPI treatment

# AFM24-102 NSCLC *EGFR*wt Expansion Cohort with Tumor Shrinkage in 7 Patients (47%)



#### Waterfall Plot for Best %-Change from BL in Sum of Longest Diameter (Investigator Assessment)



Data cut: 05-Dec-2023

#### **Best Percent Change From Baseline**

- Overall, 14 of 15 patients with at least 1 efficacy scan# available
- 1 CR (confirmed):
  - -70% change from baseline
- 2 PR (confirmed):
  - -32% change from baseline
- 1 PR (unconfirmed):
  - -50% change from baseline
  - -50% change from baseline
- 7 SD
- 3 PD\*



\* One additional patient (ES-002-3014 - not displayed in the waterfall plot) discontinued early and was not evaluable according to RECIST 1.1

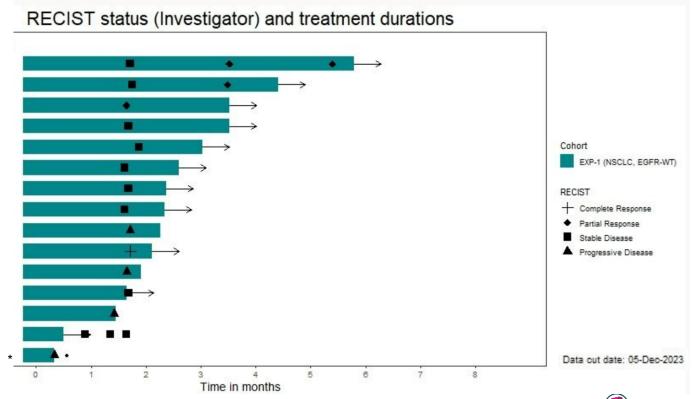
# valid post-baseline efficacy scan according to RECIST 1.1

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# AFM24-102 NSCLC *EGFR*wt Expansion Cohort: Treatment Ongoing in 11 of 14 Evaluable Patients





According to RECIST 1.1, a subsequent second scan is required for confirmation \* Early discontinuation

AFFIMED

# Based on Rechallenge Data, Atezolizumab Monotherapy has Little to No Activity After Progression on CPI



Metric	Atezo Monotherapy <sup>1</sup>	
<b>○</b> ORR	0-7%	
<b>⊘</b> mPFS	2.9-3.9 months	

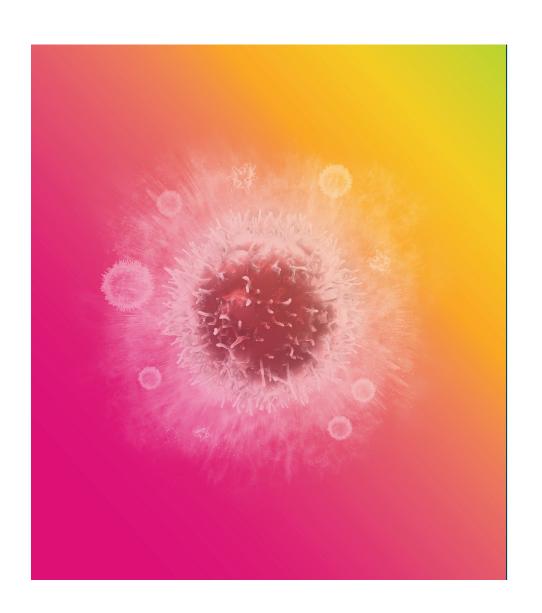


## It is unlikely the results in NSCLC EGFRwt are driven solely by atezolizumab

 "Retreatment With Anti-PD-L1 Antibody in Advanced Non-small Cell Lung Cancer Previously Treated With Anti-PD-1 Antibodies", ANTICANCER RESEARCH 39: 3917-3921 (2019), "Switching administration of anti-PD-1 and anti-PD-L1antibodies as immune checkpoint inhibitor rechallenge in individuals with advanced non-small cell lung cancer: Case series and literature review," Thoracic Cancer 11 (2020) 1927–1933



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### AFM28

ICE® in AML



## AFM28: AML Requires Novel Treatments with Strong Rationale and Well Tolerated Toxicity Profile



Significant market potential and high unmet need

Newly diagnosed AML: 42,000 annual incidence (7MM)

High relapse rate: 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: High rates of relapse

Limited options for R/R AML

High toxicity of current treatment options

Primarily a disease of elderly, majority of patients cannot tolerate standard treatment

Treatment-related deaths and poor quality of life from treatment-related toxicity



### AFM28 is Designed to Improve Efficacy and Safety in AML to Prevent or Delay R/R Disease



### AFM28

Shows differentiating preclinical efficacy and safety data

### AFM28 poster presentations at ASH 2021, NK2022 and ASH 20221,2

- Selectively redirects NK cells to CD123+ leukemic cells and leukemic stem cells
- Potent induction of NK cell ADCC even at very low CD123 expression
- Very low risk of CRS based on preclinical toxicity studies
- Specific high affinity binding to CD16A with prolonged NK cell surface retention
- Potential for combination with off-the-shelf allogeneic NK cell therapy

### **Monotherapy**

Establish a dosing regimen and assess safety and preliminary activity

#### **Status**

- Cleared 3<sup>rd</sup> dose cohort cleared without dose limiting toxicities
- Completed enrollment in 4<sup>th</sup> dose cohort

### **NK** cell combinations

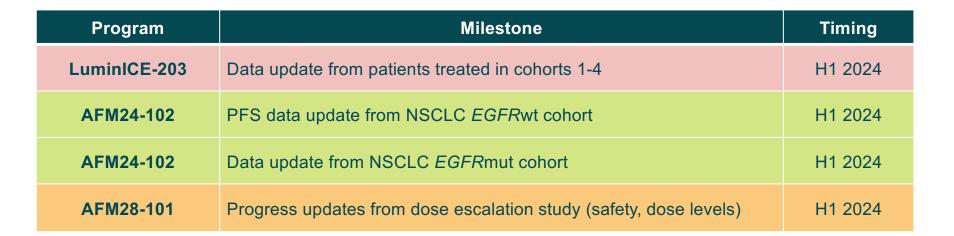
#### **Status**

Study initiation planned as soon as feasible

Jana-Julia Götz et al. AFM28, FM28, a Novel Bispecific Innate Cell Engager (ICE®), Designed to Selectively Re-direct NK Cell Lysis to CD123 + Leukemic Cells in Acute Myeloid Leukemia and Myelodysplastic Syndrome (ASH – American Society for Hematology Annual Meeting, December 2021)
Jens Pahl et. al. Novel Bispecific Innate Cell Engager AFM28 in Combination with Allogeneic NK Cells for the Treatment of CD123+ Acute Myeloid Leukemia and Myelodysplastic Syndrome (NK2022 – Society for Natural Immunity, May 2022)



# Multiple Potential Inflection Points in H1 2024 - Cash Runway into 2025





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