BIOSCIENCES

Corporate Presentation

January 2025



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NAYA Biosciences (NASDAQ:NAYA) A Life-Science Portfolio Company Poised for Accelerated Growth & Value Creation



Expanded, NASDAQ-listed company formed through merger with INVO Bioscience.

Validated hub & spoke model supports acquisition, development, and partnering of high-potential assets

Competitive bifunctional antibody pipeline with multiple clinical readouts in 2025-2027 and potential for leadership in hepatocellular carcinoma (HCC), multiple myeloma, prostate cancer, and autoimmune diseases

Stable, profitable revenues through legacy women's health business (INVO)

Hub & Spoke Model Leverages Shared Resources, Leadership, & Access to Capital Enables Rapid Acquisition, Development, and Partnering of Assets



Promising Therapeutic Portfolio with 2025-2027 Clinical Milestones

Validation of Data at Major Oncology Meetings including AACR, ASH, EHA, ESMO, and SITC

Target	Product Platform	Candidate	Indication	Pre-Cli
GPC3 x NKp46	Flex-NK™ Bifunctional Antibody	NY-303	Hepatocellular Carcinoma	
	Flex-NK™ Bifunctional Antibody	NY-303	Solid & Pediatric Tumors	
CD38 x NKp46	Flex-NK™ Bifunctional Antibody	NY-338	Multiple Myeloma	
	Flex-NK™ Bifunctional Antibody	NY-338	Autoimmune	
PD1 x VEGF	Flex Bifunctional Antibody	NY-500	HCC & Solid Tumors	
PSMA x NKp46	Flex-NK™ Bifunctional Antibody	NY-600	(mCRPC) Prostate Cancer	

027 Clinical Milestones CR, ASH, EHA, ESMO, and SITC



Companies Engaged in the Development of Bifunctional Antibody Therapeutics

Summit	PD1 x VEGF (Oncology) Phase II/III	Data der
	PD1 x VEGF (Oncology) Preclinical (IND Q4'25/Q1'26)	\$140 Million Series
	PD1 x VEGF (Oncology) Preclinical (IND Q4'25/Q1'26)	Reverse Merger
礼新医药 LaNova Medicines	PD1 x VEGF (Oncology) Phase I	Glo \$588 N
BIOTHEUS 普米斯生物技术	PD(L)1 x VEGF (Oncology) Phase II	Acqu
Merus	EGFR x LGR5 (Oncology) Phase II/III	
JANUX	PSMA T-Cell Engager (Oncology) Phase I	Seco
BICARA THERAPEUTICS"	EGFR/TGF-β (Oncology Phase I/IIa completed	\$31

*Source: Bloomberg, Market Cap based on 12/31/24 Closing Price ** based on Glycomimetics-Crescent post-money merger ratio of 3.1% / 96.9% & Glycomimetics closing price of of \$0.25 from 12/31/24 *** based on company press releases (hyperlinked)

Included for informational purposes only. The performance, capital raising and market capitalizations / valuations of the foregoing companies is neither indicative nor predicative of the results of our company. We advise you to carefully review our "Risk Factors" which are included in our filings with the SEC.

\$13.16 Billion Market Cap* monstrates superior efficacy to Keytruda®***

s A Financing Led By Orbimed, Avoro, and Samsara***

Implied Valuation: \$518 Million** with NASADAQ: GLYC, \$200 Million Financing***

bal License Acquired by Merck & Co, Aillion Upfront, \$2.7 Billion Milestones***

iired by Beyond Tech for \$800 Million +
\$150 Million in Milestones***

\$2.9 Billion Market Cap*

\$3.1 Billion Market Cap* ondary Public Offering (\$400 Million)***

\$948M Market Cap*, .5 Million IPO @ \$1.3B Post-Money***

Seasoned Entrepreneurial Leadership Team





Lyn Falconio Head, NAYA Women's Health





Anna-Baran Djokovic, LLM SVP, Investor Relations











Ravi Kiron, PhD Head of Strategic Innovation





SERONO



Vidisha Mohad, PhD Entrepreneur-in-Residence,



Senior Advisors To Accelerate Strategic Growth









Yaron Ilan, MD





Jean Kadouche, PhD

genzyme Jay PASTEUR



HCC: A Highly Prevalent Cancer Globally with Limited Therapeutic Options

Large Adressable Market for Systemic Therapy





of Candidates for Systemic Therapy are Non/Partial Responders to 1L Therapy**

** Updated efficacy and safety data from IMbrave150 (hyperlinked)

Rapidly-Evolving HCC Treatments Favor Combination Therapy & Bifunctional Antibodies

High Unmet Medical Need for 70% of Non/Partial Responders Despite Significant Advances with New Standard of Care (Atezo-Bev)



2022

2028*

Anti-PD1 + Anti-CTLA4

(nivolumab + tremelimumab)

20.1%

Response Rate

3.8 months

Progression-Free Survival

16.4 months

Overall Survival

PD1 x VEGF

Bifunctional

Antibody

GPC3 x NKp46 Bifunctional Antibody

NAYA Positioned to be a Leading Player in HCC by 2028 with Next-Generation NY-303 & NY-500 Bifunctional Antibodies



Llovet, J.M., Kelley, R.K., Villanueva, A. et al. Hepatocellular carcinoma. Nat Rev Dis Primers 7, 6 (2021). **Han JW et al: Predicting Outcomes of Atezolizumab and Bevacizumab Treatment in Patients with Hepatocellular Carcinoma. Int J Mol Sci. 2023 Jul 22;24(14):11799.

NY-303

GPC3 x NKP46

Flex-NK[™] Bifunctional Antibody

Next-Generation Second-Line Therapy for Non/Partial Responders to Current Standard of Care (Tecentrig + Avastin™)

• Directly addresses biology of non-responders by targeting both GPC3 & NK cells and making tumors sensitive to PD1 Checkpoint blockade, turning tumors from "cold" to "hot" Initiating phase I/II in HCC in 2025 Potential phase II/III accelerated development in 2027 • Other potential indications include ovarian, lung, & pediatric cancers

Targeting HCC with GPC3 & NK Cells with NKp46

GPC3*: A Promising Target

Glypican 3 (GPC3) is an oncofetal protein expressed on 80% of HCC cells & 30-50% of other solid tumors, while predominantly absent in normal adult tissue.

GPC3 blood levels correlate with severity of HCC



NKp46**: A Preferred NK Cell Activator

- Primary driver of natural NK cell cytotoxicity
- Shows sustained expression on NK cells in the tumor micro-environment (TME) while other activating receptors can be down-regulated
- NKp46 binding induces reversal of NK cell exhaustion
- NKp46-induced activation of NK cells drives an increase in infiltrating NK cells in the TME

*Guo M et al. Glypican-3: A New Target for Diagnosis and Treatment of Hepatocellular Carcinoma. J Cancer. 2020 Feb 3;11(8):2008-2021. *Glypican 3 Overexpression across a Broad Spectrum of Tumor Types Discovered ...Kirsten L. et al, The American Journal of Pathology, Sept 2018 ** Recognition and Prevention of Tumor Metastasis by the NK Receptor NKp46/NCR (hyperlinked)

**Multifunctional Natural Killer Cell Engagers Targeting NKp46 Trigger Protective Tumor Immunity (hyperlinked)

NKp46 is a preferred activating receptor to induce NK cell-mediated immunity in solid tumors.

NY-303 Pre-Clinical Proof of Concept & Unique Reversal of NK-Cell Dysfunction





Khairnar V, Li W, Rath A, et al, Journal for ImmunoTherapy of Cancer 2024;12:doi: 10.1136/jitc-2024-SITC2024.1074 (hyperlink)



Reversal of NK Cell Dysfunction

NY-303 Turns "Cold" Tumors "Hot" by Reducing Active β -Catenin Levels

Reduced β - **Catenin Levels**



- GPC3 Makes HCC Tumors "Cold" (Non-Susceptible for Immunotherapy)
- By Reducing Reduced β -Catenin Level, NY-303 Makes them "Hot" (Susceptible), Facilitating Immune Cell Infiltration in Tumor Microenvironment



Wnt/β-Catenin activation results in T cell exclusion in TME



(Ho M et. al., 2011)

High tumor GPC3 levels known to are be associated with increased Wnt/β-catenin oncogenic signaling resulting in HCC tumor proliferation



(Spranger T and Gajewski T et. al., 2015)

Wnt/β-catenin signaling activates ATFchemokine (CCL4) production and DC migration to tumor resulting in T cell exclusion in TME

3 transcription factor that represses

High β-catenin associated with non-inflamed T cells in HCC TME



(Luke J and Gajewski T et. al., 2019)

 Increased beta catenin levels show reduced T cell inflamed signatures in HCC and other solid tumors (TCGA data)

NY-303 Enables Response in First-Line Therapy (PD-1 Checkpoint) Refractory Patients

NY-303 Down-Modulates GPC3 by Inhibiting AFP & Making the Tumor Susceptible by Inhibiting \beta-Catenin



CYT-303 FLEX-NK^mengager dose response efficacy mechanisms in HCC tumor model and safety in cynomolgus monkey toxicology studies support clinical evaluation in hepato-cellular carcinoma, Vishal et al, AACR 2022 Poster (hyperlink)



NY-303 Data Supports H1 2025 Initiation of Phase I/IIa Clinical Trials

- Ability to Redirect NK Cells to Kill HCC Tumors Cells
- Enhanced Killing Ability & Reversed Dysfunction of NK Cells
- Improved Tumo Tumor Models
- Turning "Cold" (Non-Susceptible) Tumors Into "Hot" (Susceptible) Tumors, Facilitating Invasion of Immune Cells to Tumors & Making Them Sensitive to PD1 Checkpoint Blockade
- No Toxicity at up to 20 Times Expected Therapeutic Dose
- Favorable FDA Feedback on CMC & Tox
- PK Supports Weekly Administration in Patients

Khairnar V, Li W, Rath A, et al, Journal for ImmunoTherapy of Cancer 2024;12:doi: 10.1136/jitc-2024-SITC2024.1074 Cancer Res (2023) 83 (7_Supplement): 5667 https://doi.org/10.1158/1538-7445.AM2023-5667

Improved Tumor Growth Inhibition & Dose-Response in HCC

Targeting GPC3 to Enable Response in Patients Refractory to First Line Immunotherapy HCC Treatment (Tecentriq[®] + Avastin[®])



Since NY-303 can activate NK cells & reduce HCC tumor burden, high GPC3 & AFP levels can be converted to low GPC3 & AFP signatures that are repsonsive to Atezo + Bev 1st line immunotherapy

Nature Medicine, A Xu et al Nat Med 2022 and G030140 and IMbrave150 (hyperlink)

Phase I/IIa to Evaluate NY-303 as Monotherapy in 2nd Line HCC Patients at Leading Israeli Academic Centers, with Phase 2a Expansion Planned in the US, EU, and Asia



Hadassah Hospital, Jerusalem



Sheba Medical Center, Tel Aviv



Sourasky Medical Center, Tel Aviv

- Initiation of phase I/IIa clinical trials cleared by Israeli Ministry of Health & internal review boards at leading medical academic centers
- <u>Lead investigator</u>: Jonathan Cohen, MD, PhD, Director of Clinical Research at the Sharett Institute of Oncology at Hadassah Hebrew University Medical Center
- <u>Phase I/IIa monotherapy trial</u> to enroll HCC patients not responding to first-line immunotherapy standard of care (check point inhibitors +/- anti-angiogenic drugs, such as Tecentriq + Avastin)
- <u>Phase I/IIa endpoints</u> to include safety, pharmacokinetics, activity markers, preliminary clinical efficacy (overall response rate) and time-to-progression (progression-free survival)
 - Phase I Dose escalation (4 levels) with weekly administration as long as no disease progression is observed (first patient expected in H1 2025 and data by H1 2026)
 - <u>Phase 2a</u> to expand to at academic centers in the US, Europe and Asia starting in 2026 and evaluate both monotherapy and combination with check point inhibitors
 - <u>Opportunity for fast-track designation</u> based on phase I/IIa overall response rate & progression-free survival

NAYA's AI-Optimized PD1 x VEGF Bifunctional Antibody Aiming for HCC Monotherapy Clinical Readouts in 2026

PD1 x VEGF Bifunctional Antibodies Expected to Surpass Standard Anti-PD(L)1 Antibodies in Multiple Oncology Indications



* IQVIA (hyperlink) **Leading drugs worldwide based on projected 2024 sales (hyperlink) ***Cancer Research (hyperlink) ****Annals of Oncology (hyperlink) Included for information purposes to demonstrate the current market for the standard anti-PD(L)1 Antibodies cancer treatment. There is no guarantee that PD1 x VEGF bifunctional antibodies will surpass the standard of care demonstrated by Keytruda, or at all, and even if it does surpass the standard of care, there is no guarantee that sales in PD1 x VEGF bifunctional antibody products generally, or sales in our product candidate, if ever approved, and if any, will surpass those of Keytruda

Opportunity for NAYA to Lead in HCC

Lead PD1 x VEGF antibodies in Phase III, with focus on Lung & Breast Cancer (Summit Therapeutics, BioNTech)

Rapid followers entering Phase I in 2026 (Ottimo, Crescent, Merck & Co)

NAYA to target clinical data readouts (2026) with NY-500 in 1L HCC

NAYA to leverage development synergies with clinical development of NY-303 in 2L HCC, non-responders to PD(L)1

First PD1 x VEGF Bifunctional Antibody Demonstrates Progression-Free Survival **Benefit Over First-Line Immunotherapy (Keytruda®) in Lung Cancer**

Immune Checkpoint Breakthrough Data



PD1 x VEGF Bifunctional Breakthrough Data



NY-338: A Promising CD38-Targeting Bifunctional Antibody for Both Multiple Myeloma & Autoimmune Diseases

Continued Growth of Multiple Myeloma Market Driven by **Darzalex**[®] & **Biologics**

	2023	2030
Multiple Myeloma*	\$23B	\$33B
Darzalex®* (Daratumumab)	\$9.7B	\$14.7B

Differentiation Opportunity in Established, Competitive **Multiple Myeloma Market**

Need for new therapies as Darzalex[®] now moved to first line

Bifunctional antibodies positioned to address non-responders & eventually challenge Darzalex® (3 recent approvals from J&J, Pfizer)**

NY-338 shows key differentiation

compared to both monoclonal & T-cell bifunctional antibodies, including:

- ☑ Longer Half-Life, Increased Potency (through dual CD38/NK targeting)
- ☑ Improved Safety (no CRS / undesirable effects on immune cells)
- ☑ Low-to-no Fratricide on NK cells

*https://www.fiercepharma.com/marketing/analysts-predict-myeloma-market-will-hit-33b-2030-and-tip-1-company-take-lions-share ***https://investors.biogen.com/news-releases/news-release-details/biogen-completes-acquisition-human-immunology-biosciences **https://pmc.ncbi.nlm.nih.gov/articles/PMC10618718/

Emerging Opportunity for CD38 in High-Growth Autoimmune Disease Market

Use of CD38 antibodies for autoimmune diseases validated, with:

Early clinical data from Daratumumab (J&J) & Felzartamab (HI-Bio)

\$1.8B Acquisition of HI-Bio by Biogen***, based on Phase II clinical data with felzartamab in orphan autoimmune diseases

CD38 T-cell engagers in autoimmune diseases a top development priority for IGM Biosciences

NY-338 Has Overlapping + Distinct Epitope Binding Sites and Gene Expression Profiles Compared to Daratumumab



*Source: Daratumumab from Literature, NY-338 from INternal NAYA Data *M Weers et al. J. Immunol 2011; H Lee et al **Biochem Biophys Res Comm 2021*

Differentiated Gene Expression Profiles **

S	Genes	NY- 338	Dara
	GZMK	+	+
y and	IFI35	+	+
г	STAT	+	+
	1,2,3,4		
:			
n	TIGIT	+	+
s	KIR3DL2	-	-
yte	CD96	+	-
n	CD244	+	-
s	CD2	+	-
e	PECAM-1	-	+
n and	CCL8	-	+
xis	CXCL1	-	+

NY-338 Pre-Clinical Proof of Concept & Unique Reversal of NK Cell Dysfunction





Lin L, Chang H-M, Nakid C, Frankel S, Wu D, Kadouche J, et al. P842: NOVEL MULTIFUNCTIONAL TETRAVALENT CD38 NKP46 FLEX-NK ENGAGERS ACTIVELY TARGET AND KILL MULTIPLE MYELOMA CELLS. HemaSphere. 2022;6:736-7.

NY-338 Demonstrates Improved Profile Compared to Daratumumab



- NY-303 shows significant lower-to-no NK fratricide compared to Daratumumab
- NY-303 shows lower immune cell depletion compared to Daratumumab
- NY-303 shows low-to-no cytokine release (CRS)

Lin L, Chang H-M, Nakid C, Frankel S, Wu D, Kadouche J, et al. P842: NOVEL MULTIFUNCTIONAL TETRAVALENT CD38 NKP46 FLEX-NK ENGAGERS ACTIVELY TARGET AND KILL MULTIPLE MYELOMA CELLS. HemaSphere. 2022;6:736-7.

l to Daratumumab tumumab



Proposed Mechanism of Action for NY-338's Differentiated Profile vs. Daratumumab

NY-338 Showed Lower Fratricide, Immune Subset Depletion, and Cytokine Release

- NY-338 engagement of NK cells activates NKp46 signaling and neutralizes CD38-mediated apoptosis and ADCC of NK cells. >
- NY-338 co-engagement of NKp46 & CD38 on NK cells sequesters NY-338 more to NK cells compared to other CD38+ immune cell subsets, minimizing activation and depletion of these cell types.
- NY-338 also minimizes cytokine release by these immune cells compared to Daratumumab.



NY-338 Has Potential to Emerge as New Option in Multiple B-Cell Autoimmune Diseases

- Validated B-Cell Approach Therapeutics Approved in Rheumatoid Arthritis & Systemic Lupus Erythematous (Rituximab[™], Belimumab[™], Anifrolumab[™])
- **CD38 Biology Highly-Differentiated** from CD19 & BCMA-Targeted approaches
- **CD38 Uniquely Inhibits Plasma Cells & Type I IFN pDCs** (*Plasmacytoid Dendritic Cells*) in Autoimmunity
- **Potential for Expansion to Multiple Indications** Positive Clinical Data in Multiple Orphan Autoimmune Indications with Felzartamab (CD38 mAb) leads to Biogen acquisition of HI-Bio
- **Opportunity for Unique Positioning** in Indications & Patient Segments where NK Activation Beneficial

N Engl J Med 2020;383:1149-1155 DOI: 10.1056/NEJMoa2023325 Roccatello, D., Fenoglio, R., Caniggia, I. et al. , Nat Med 29, 2041–2047 (2023). https://doi.org/10.1038/s41591-023-02479-1 N Engl J Med 2024;391:122-132 DOI: 10.1056/NEJMoa2400763 The NEW ENGLAND JOURNAL of MEDICINE

BRIEF REPORT

Targeting CD38 with Daratumumab in Refractory Systemic Lupus Erythematosus

nature medicine

Article

https://doi.org/10.1038/s41591-023-02478-1

Daratumumab monotherapy for refractory lupus nephritis



ΝΑΛΑ BIOSCIENCES

Investment Considerations



Multiple Anticipated Clinical Milestones in 2025-2027

*estimated timing	2025	2026		
NY-303 GPC3 x NKp46 for HCC	★FPI Phase 1/2a	Data ★	★ FPI	
NY-500 PD1 x VEGF for HCC	IND-enabling studies 📩	🛨 FPI	Phase 1/2a	Data
NY-338 CD38 x NKp46 for Multiple Myeloma	IND-enabling studies 🖈 🖈 FPI		Phase 1/2a	[
NY-338 CD38 x NKp46 for Autoimmune Diseases	IND-enabling studies ★ Phase 0 ★	★ FPI	Phase 1/2a	ſ



Achieving Competitive Product Profiles with 4 Bifunctional Antibodies in 2025-27



NY-303 GPC3 x NKp46 **Bifunctional Antibody**

2nd-Lne Monotherapy in HCC in Patients Not Responding to **1st Line Checkpoint Inhibitors**



NY-500 PD1 x VEGF **Bifunctional Antibody**

AI-Optimized, US-Developed Monotherapy with Clinical Data in 1st-Line HCC



CD38 x NKp46 Bifunctional Antibody

Potential for Differentiation to Darzalex & T-Cell Engagers in Multiple Myeloma & Autoimmune Diseases



NY-338



NY-600 PSMA x NKp46 **Bifunctional Antibody**

Potential for Differentiation to T-Cell Engagers, Antibody Drug Conjugates, and Radio Immunotherapeutics in metastatic Castration Resistant Prostate Cancer (mCRPC)

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