

Valerio Therapeutics

The Next-Generation Of Precision-Guided Therapeutics

Specific Tissue Delivery Remains a Major Challenge that Impacts Both Efficacy and Safety

Key Delivery Challenges in Therapeutic Modalities

Oligo-based Therapies

Non-specific approaches

- LNPs
- Polymers
- Local administration of siRNAs



Delivery limited to few organs

- Liver – GalNAc
- Muscular – Transferrin



Immuno-Therapies

Non-specific delivery leading to off-tissues toxicity

Rinvoq (JAK inhibitors)



Poor Delivery to Solid Tumors

ENHERTU (HER2)




The Boundaries of Delivery

- Tissue Penetration
- Off-Target Effects
- Efficacy
- Multi Receptor-Mediated Specific Delivery

Single domain Antibodies have been a Major Breakthrough, Unlocking Tissue Delivery


Conventional Antibodies (IgG)

150 kDa




Fragments Antigen-Binding (Fab)

50 kDa



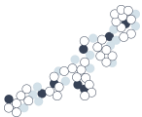
Single-Chain Variable Framents (scFv)

25 kDa




Peptides

~ 0,5 – 5 kDa



Camelid Single Domain Antibodies (sdAbs)

~ 12 – 15 kDa



	IgG	Fab	scFv	Peptide	Camelid-sdAb
Small Size, Tissue Penetration	●	●	●	●	●
Broad diversity of Binders	●	●	●	●	●
Functional Screening	●	●	●	●	●
Easy to engineer and manufacture	●	●	●	●	●
Stability	●	●	●	●	●

Our V-Body Platform Addresses Some of the Limitations of sdAbs...

Conventional Antibodies (IgG)



150 kDa

Fragments Antigen-Binding (Fab)



50 kDa

Single-Chain Variable Fragments (scFv)



25 kDa

Peptides



~ 0,5 - 5 kDa

Camelid Single Domain Antibodies (sdAbs)



~ 12 - 15 kDa

V-bodies



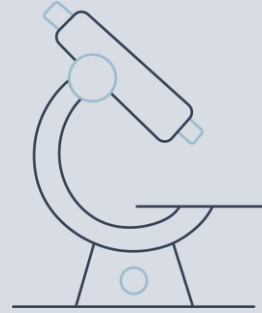
~ 15 kDa

	IgG (mAb)	Fab	scFv	Peptide	Single domain antibodies (sdAb)	
					Camelid-sdAb	V-Bodies
Small Size, Tissue Penetration	●	●	●	●	●	●
Broad diversity of Binders	●	●	●	●	●	●
Functional Screening	●	●	●	●	●	●
Easy to engineer and manufacture	●	●	●	●	●	●
Stability	●	●	●	●	●	●
Fully synthetic (rapid)	●	●	●	●	●	●
No humanization needed	●	●	●	●	●	●
Fast Lead Selection	●	●	●	●	●	●

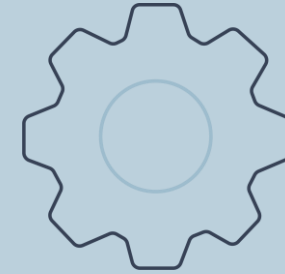
... Through Three Unique and Key Attributes



Differentiated Proprietary
Platform of Fully Synthetic
V-Body Libraries



Unparalleled *In Vitro*
Selection Process



State of the Art
Capabilities Including:

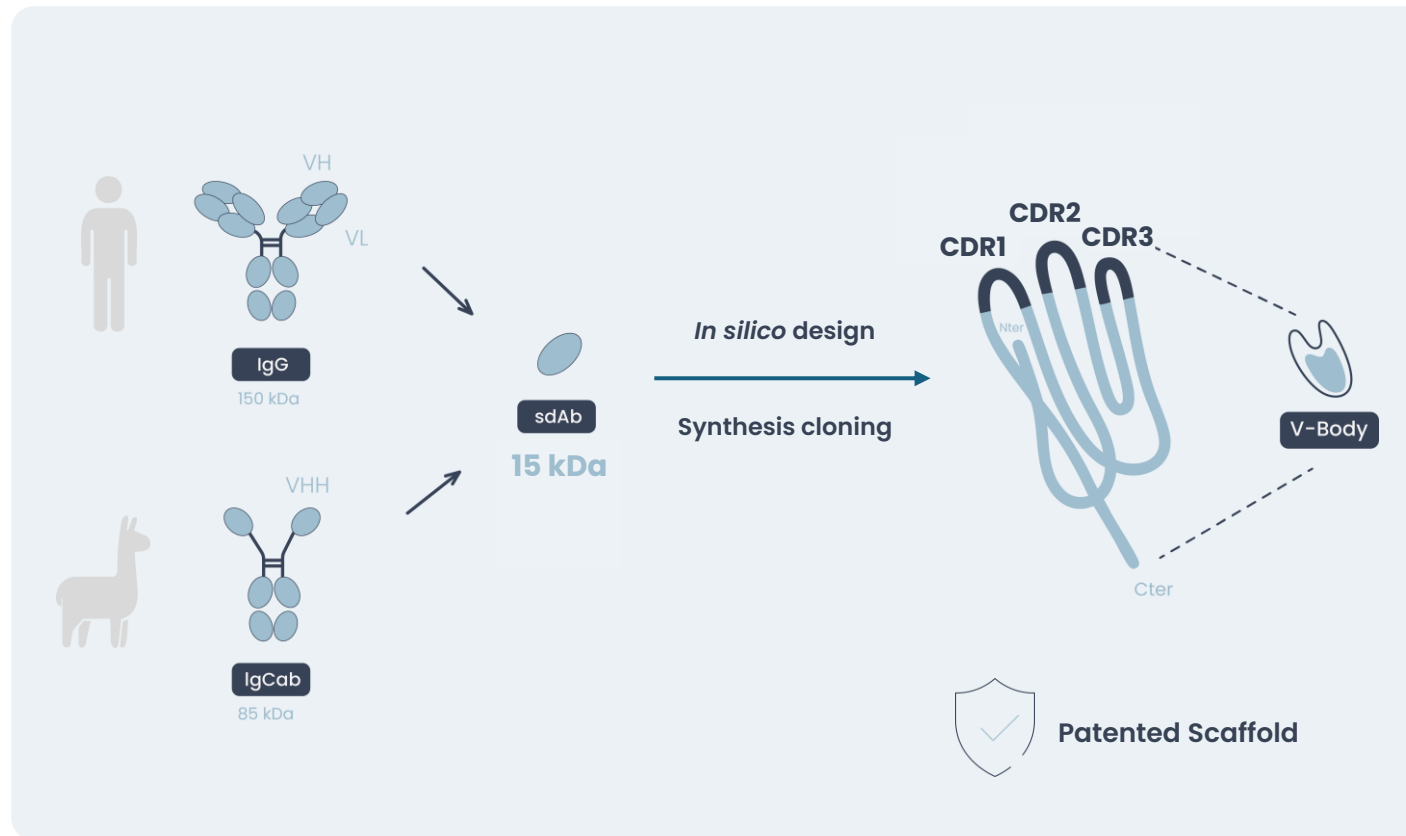
- V-Bodies
- Linker chemistry
- Payloads

Our Proprietary Platform Allows Significant Time Saving to Generate an Optimal and Customized V-Body

1 – 2 Fully synthetic humanized VHH or human VH V-Body libraries

2 – Proprietary scaffolds with random CDRs and 4 different lengths of CDR3

3 – Rationale design of CDR regions to create billions of different versions of the V-Bodies



Generate diversity:

« GimLi » library: 1.6×10^9 Human VH (sdAb)
 « NaLi » library: 3×10^9 Humanized Lama VHH (sdAb)

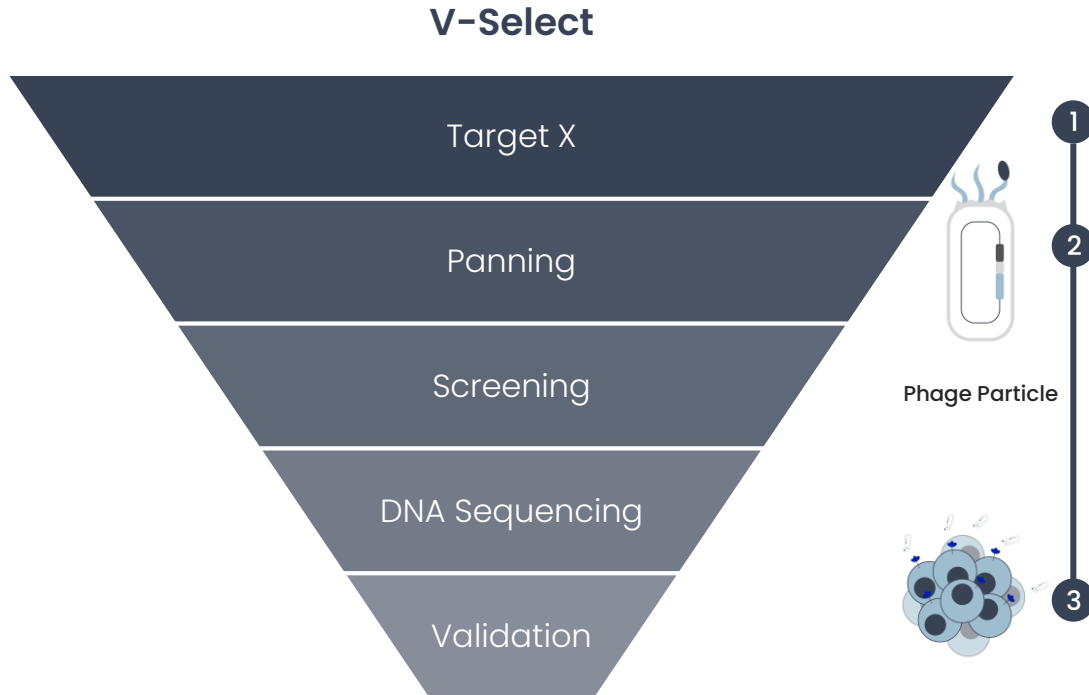
Generate refined affinity:

In vitro selection methods – V-Bodies in pM-nM ranges suitable for therapeutic development

Bypassing immunological conservation

A fully *in vitro* process in less than 3 months Vs an industry median of 15 months

Unparalleled *In Vitro* Selection Process Allowing for Tailor-Made Functional Binders



Known Target

Few V-Bodies isolated based on their functional activity

Target selection

Swift selection through phage display

A fully *in vitro* process for selecting hundreds of hits from billions of V-Body binders

- pH/T° dependent selection
- Cross-reactivity

Functional screening

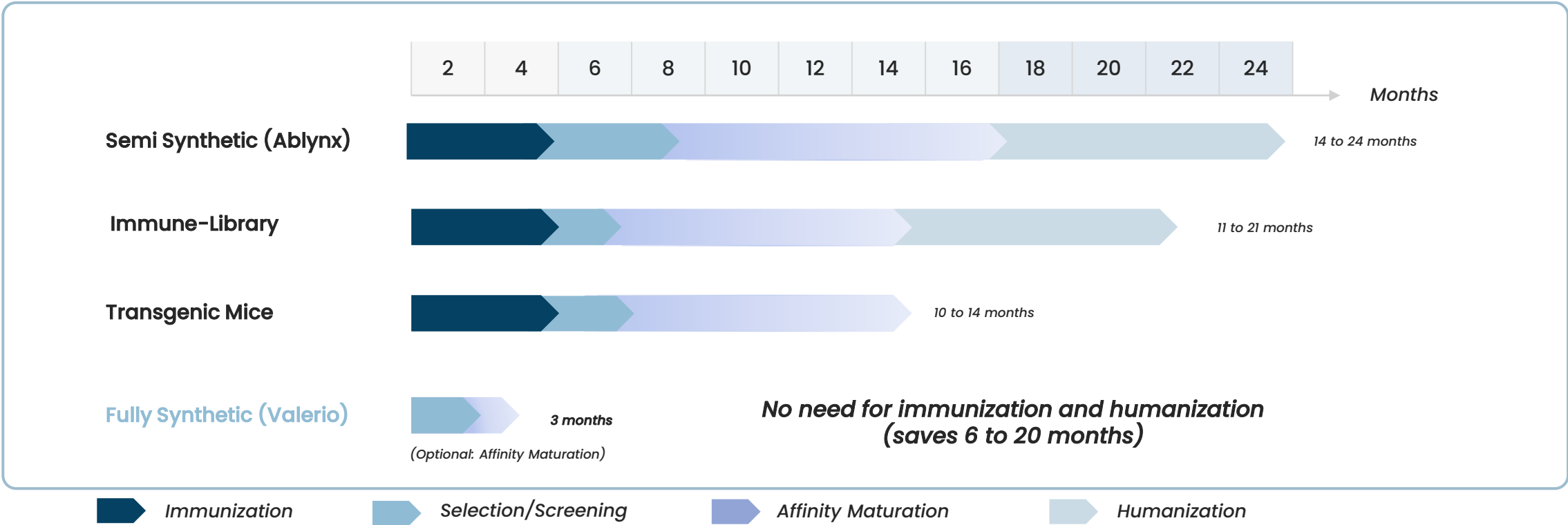
Proprietary functional screenings applied to any format of therapeutic applications for Lead selection



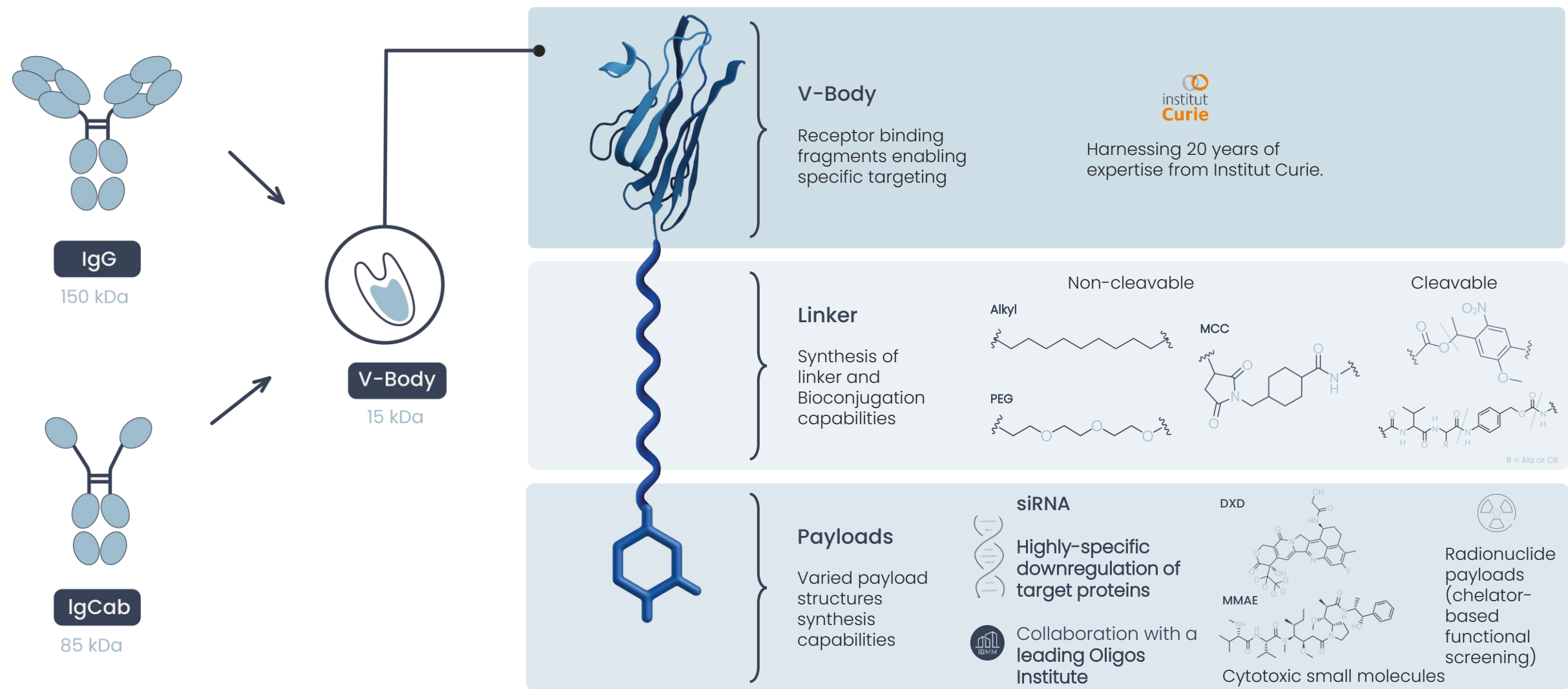
A fully *in vitro* process* to select the best synthetic sdAb validated against over >100 targets (protein, peptide, GPCR, DNA, hapten conformational antigens, etc.) in less than 3 months

**>100 peer reviewed publications*

Valerio's Integrated Platform Allows Derisked Lead Candidate in 3 months and Development Candidate within 6 to 9 months



Harnessing Capabilities; Allowing for a State of the Art Integrated Process from A to Z...



... and Derisking Next-Generation Drug Candidate for FIH in Less than 2 Years

Delivering derisked drug compound

Valerio TX Components



V-Body

Billions of Highly Specific VHs and VHHs



Linker

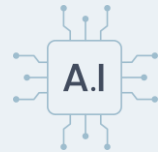
Cleavable or Non-Cleavable



Payloads

Proprietary Bioconjugation Capabilities (siRNA, small molecules, cytotoxic/radionuclide payloads ...)

AI-Driven Drug Discovery



Chemical Computing Group (CCG -MOE software)

Customized and Flexible half-life extension



Albumin-binding V-body



Fc domain

Functional Validation



Target Engagement
Internalization Assays,
Blocking/Activation
Activities,

End-use Drug Capabilities

An Array of Modalities

Inhibitor sdAb



sdAb-TCE



sd-ADC



CAR-T



Multiple Delivery Routes









IV, SC, IM, IP injections



Eye drops



A Unique Integrated Platform Providing Flexibility to Generate Multi-Modality Leads and Development Candidates In an Unmatched Timeline

	Fully Synthetic (Animal-free)	Dual Libraries (VH/VHH)	Optimized Design (no-PCR, Fully human, Stable Framework, CDR Diversity, Number of hits...)	Time to Lead Time to DC (nM to pM)	Flexible & Integrated platform Linker/ Payload (siRNA/ASO)	Flexible & Integrated platform Multispecific
Valerio Therapeutics	●	●	●	● Lead: 3 months DC: 6 to 9 months FIH < 24 months	●	●
SANOFI  Ablynx	●	●	●	●	●	●
AMGEN  INHIBRx Teneobio	●	●	●	●	●	●
Galápagos  Aboundbio	●	●	●	●	●	●
Immuno- Oncology  PRECIRIX Crescendo biologics  NANOMAB	●	●	●	●	●	●
CDMO/CRO (non proprietary Dvpt)  SPECIFICA an IQVIA business  isogenica  T W I S T	●	●	●	NA	●	●

Benefits are Already Materialized Through a Diversified Pipeline Generating Increasing Interest from Industry

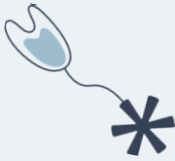
Metabolic Diseases

Oligonucleotide Payload



Immunology & Inflammatory

ADC-like



Multi-specific
V-Bodies conjugates

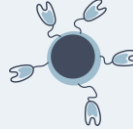


Oncology

Radionuclide
Payload



CAR-T



Multi-specific
V-Bodies conjugates



Indications

Unlocking Rare Diseases



Renal



Pancreatic



Muscular



Cardiac

Autoimmune diseases
(IBD, UC)

Solid cancers

Discovery stage → Ongoing Proof of concept

Internal development/
Partnerships

Discovery stage → Ongoing Proof of concept

Internal development/
Partnerships

Proof of concept*

Seeking Strategic Partnership
Opportunities

*In Vitro & In Vivo Data Disclosed Under CDA

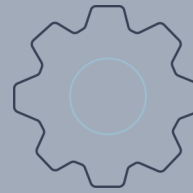
We Aim to Bring Precision-Guided Therapeutics to a New Level



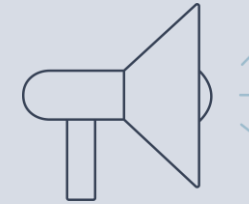
A team relying on a strong and complementary 20-years expertise in business development, licensing, antibody discovery and chemistry.



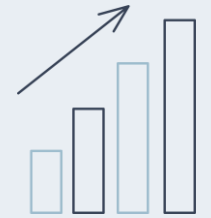
A unique positioning to unlock delivery through integrated and differentiated V-Body drug-conjugated platform.



A versatile V-Body based platform offering in depth and flexible partnering opportunities across, ADC, multi-specific sdAb, CAR-T etc.



A proven capability to deliver derisked IND-enabling next-generation product in short time framework (less than 2 years).



A Strong IP portfolio