

LOOP LAB

LoopLab Bio: Fc-Engager Platform for Antigen-Specific Immune Tolerance



Experienced (50+ years) Team of Entrepreneurs



Jochen Stritzker, PhD
CEO/CSO & Co-founder

- 20+ years biotech & pharma leadership (EU/US)
- Track record: Genelux (IPO), Themis (acquired by MSD), Merck (US)
- Multiple publications & patents
- Key achievement: Part of Themis' management team during acquisition by MSD



Simona Neubauer, Mag., MBA
COO & Co-founder

- 15+ years biotech & pharma operations
- Track record: Baxalta, Alcon, Kwizda, Themis (MSD acquisition)
- Expertise in QA & operations
- Key achievement: part of Themis team acquired by MSD



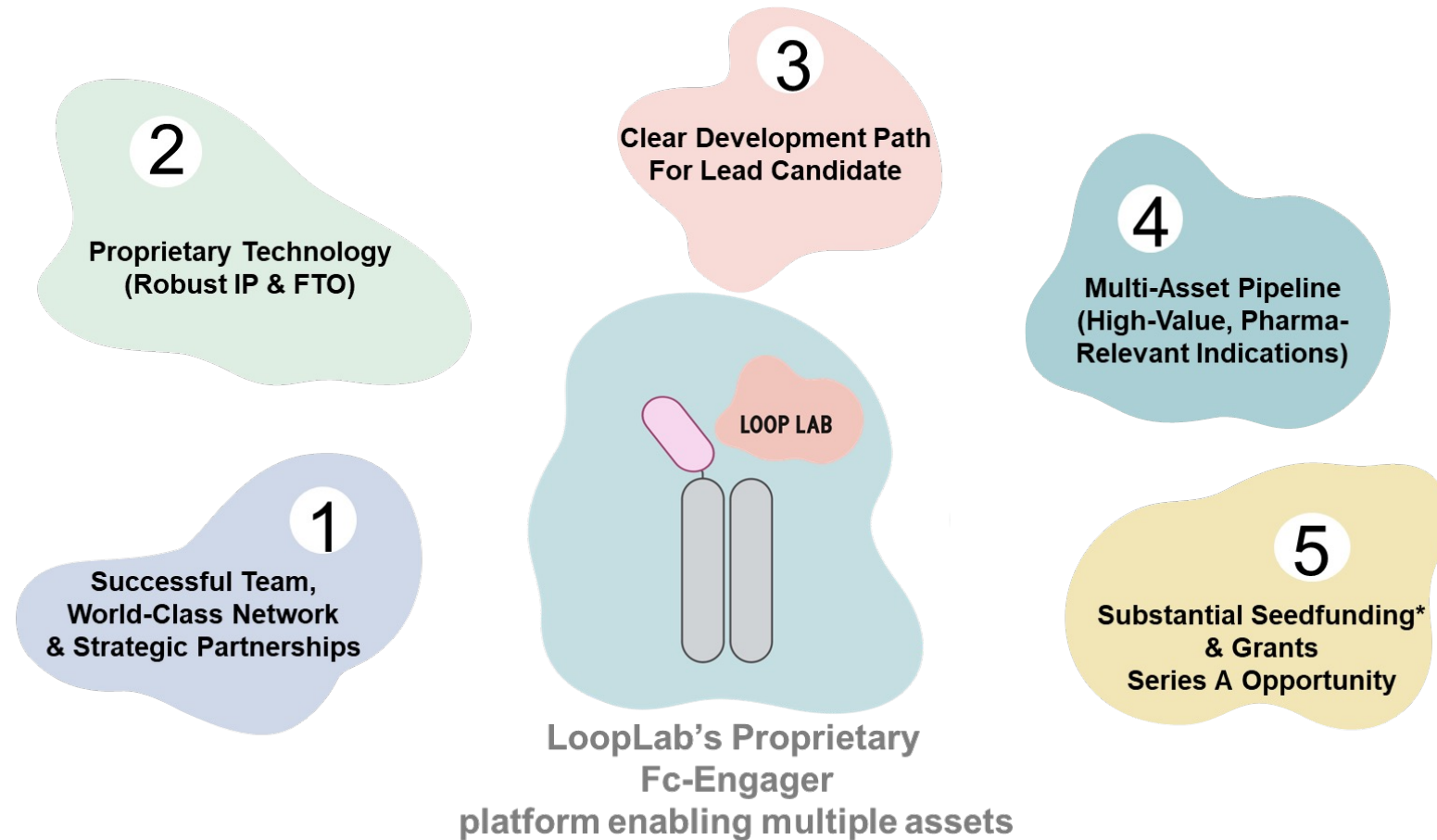
Eva Mihailovska, PhD
CDO

- 15+ years biotech & drug development
- Track record: Evotec, Valneva, AFFiRiS
- Publications & patents
- Key achievement: AFFiRiS vaccine portfolio exit / Contributed to vaccine program partnered with Pfizer

LoopLab Bio: Well-Positioned to Build Another Success Story

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VIENNA-BASED BIOTECH POISED TO TRANSFORM IMMUNE TOLERANCE THERAPY



* €9.6M Convertible Loan from MSD: - Conversion to shares upon Series A - No other obligations associated

We Re-educate the Immune System Instead of Suppressing It

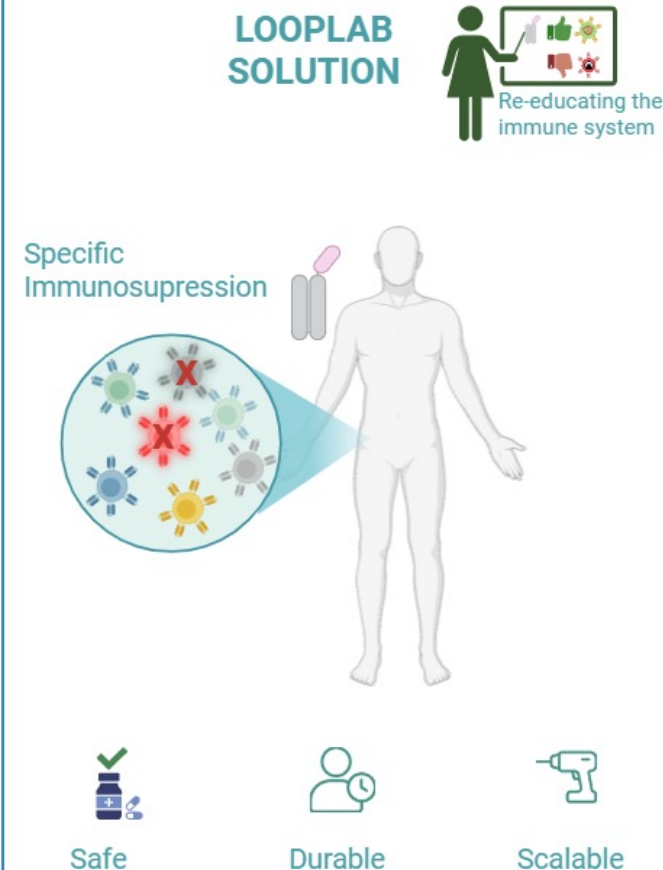
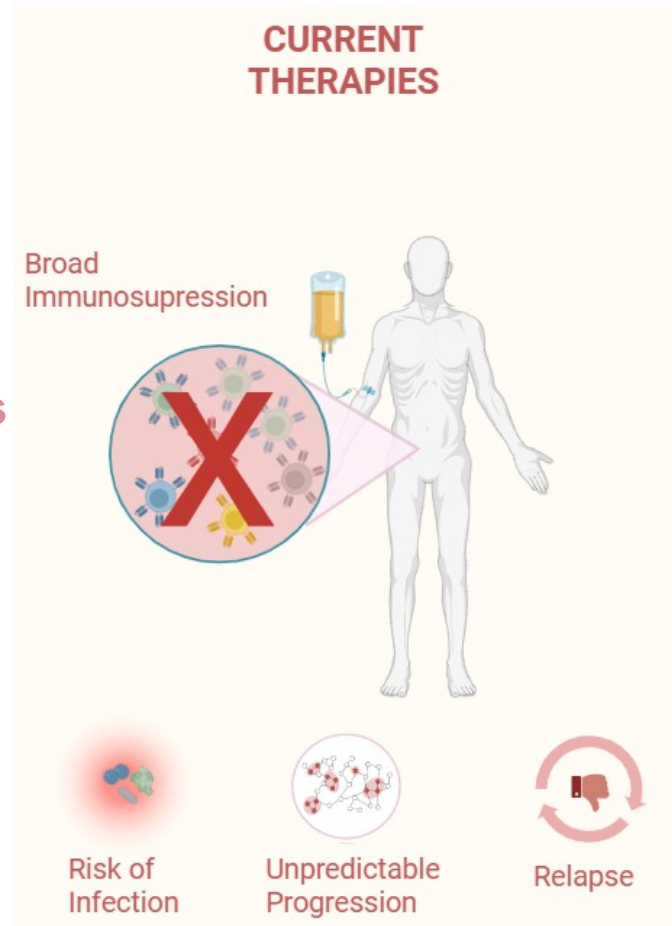
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SUPPRESSING IMMUNITY $\neq$ CURING AUTOIMMUNITY

Disease Burden*

204-800 Mio
Autoimmune Patients

>1 Bio
People with Allergies



LoopLab Fc-Engager Platform

- Antigen-specific immune tolerance
- Preserved protective immunity
- Durable disease control

Fc-Engager biologics selectively stimulate inhibitory FcγRIIB (CD32B) signaling.

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The diagram illustrates the process of antigen-specific tolerance induction through the blockage of activation signals. It shows the fusion of a target antigen (Drug/Biologic, Autoantigen, or Allergen) with a proprietary LoopLab Fc-Domain antibody. The resulting fusion protein blocks the FcγRIIb (CD32B) receptor, preventing the activation signal (indicated by a red X) and inducing tolerance.

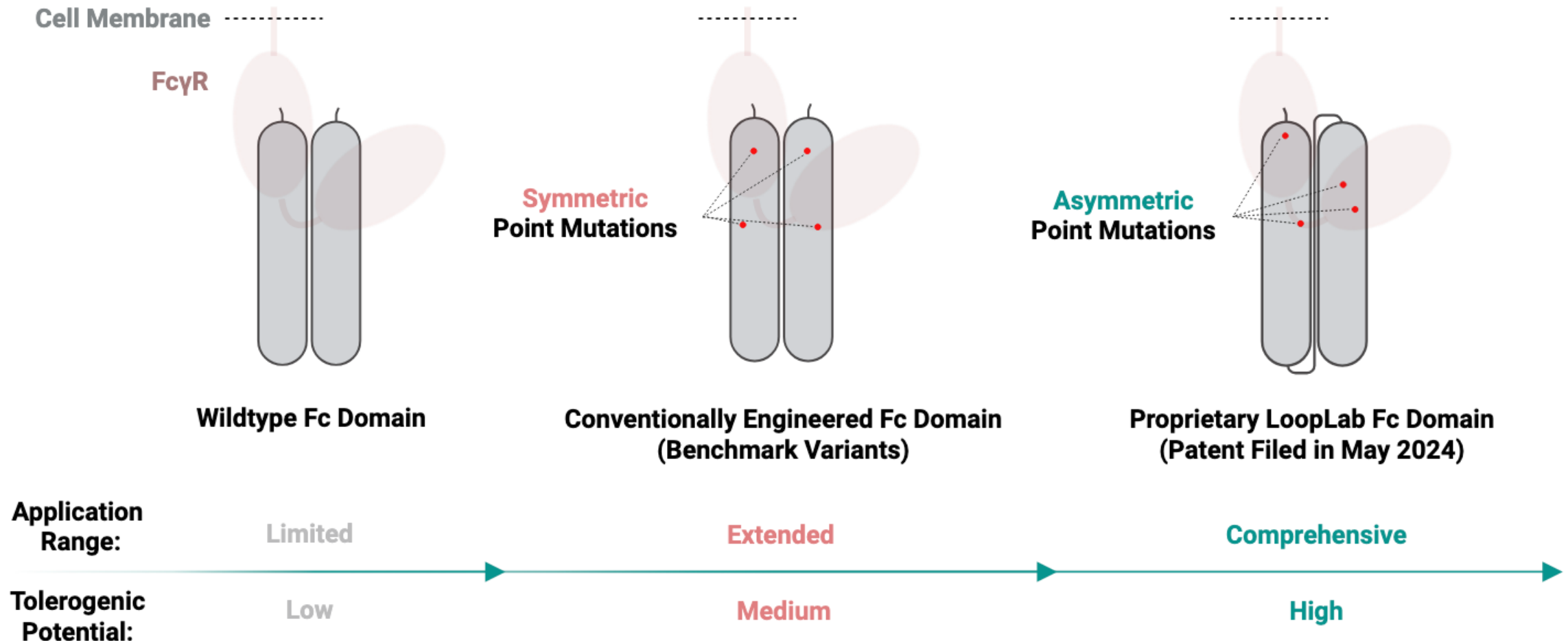
1 Targeting

2 Off-Switch

Preferential FcγRIIb (CD32B) engagement blocks activation signals, suppressing antigen-specific effector responses — **importantly normal immunity preserved.**

Best-in-Class Potency Through Exploited Asymmetric Nature of Fc-Fc γ R-Interactions¹

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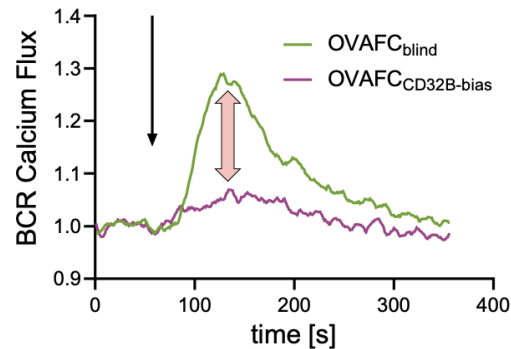
Despite being symmetric proteins, Fc-domains bind to Fc γ R in asymmetric fashion. Therefore, introduction of asymmetric mutations increases potential mutations space that can be exploited and result in increased affinity towards specific Fc γ R.

De-Risked: Mechanistic, Cellular & In Vivo Evidence

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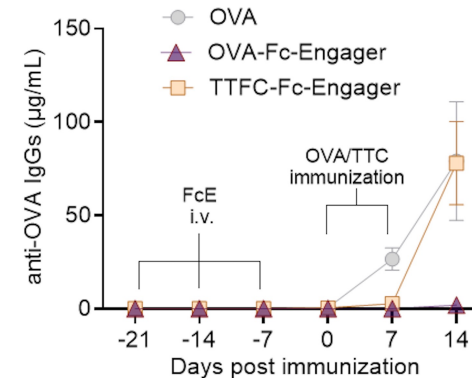
STRONG DATA PACKAGE ACROSS ALL THREE LEVELS · MANUFACTURABLE WITH STANDARD PROCESSES

Molecular Level



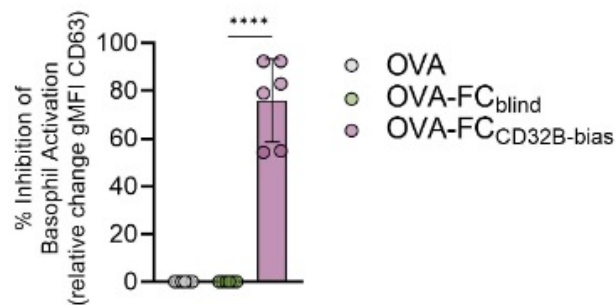
- Specific **Inhibition of B-Cell Receptors**
- **ITIM-Phosphorylation of CD32B**
- Selective **FcγR-binding**

Humanized Mouse Models



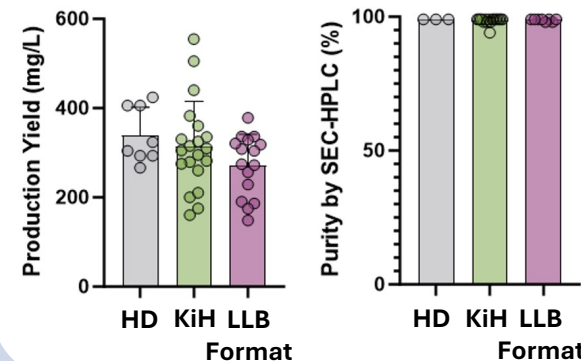
- **Prevented Antibody Formation**
- **Favorable PK Characteristics**

Cellular Level



- Prevented Activation of **Primary Human Basophils**
- **Mast Cell Inhibition**
- Antigen-Specific **B-cell Inhibition**

Manufacturability



- **Robust Producibility Yields**
- **Efficient Purification**

Fc Engineering Competitors

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LoopLab's USPs

Engineered Fc Precision

Selective CD32B engagement

Antigen-Specific Tolerance

No systemic immunosuppression

High Potency & Durability

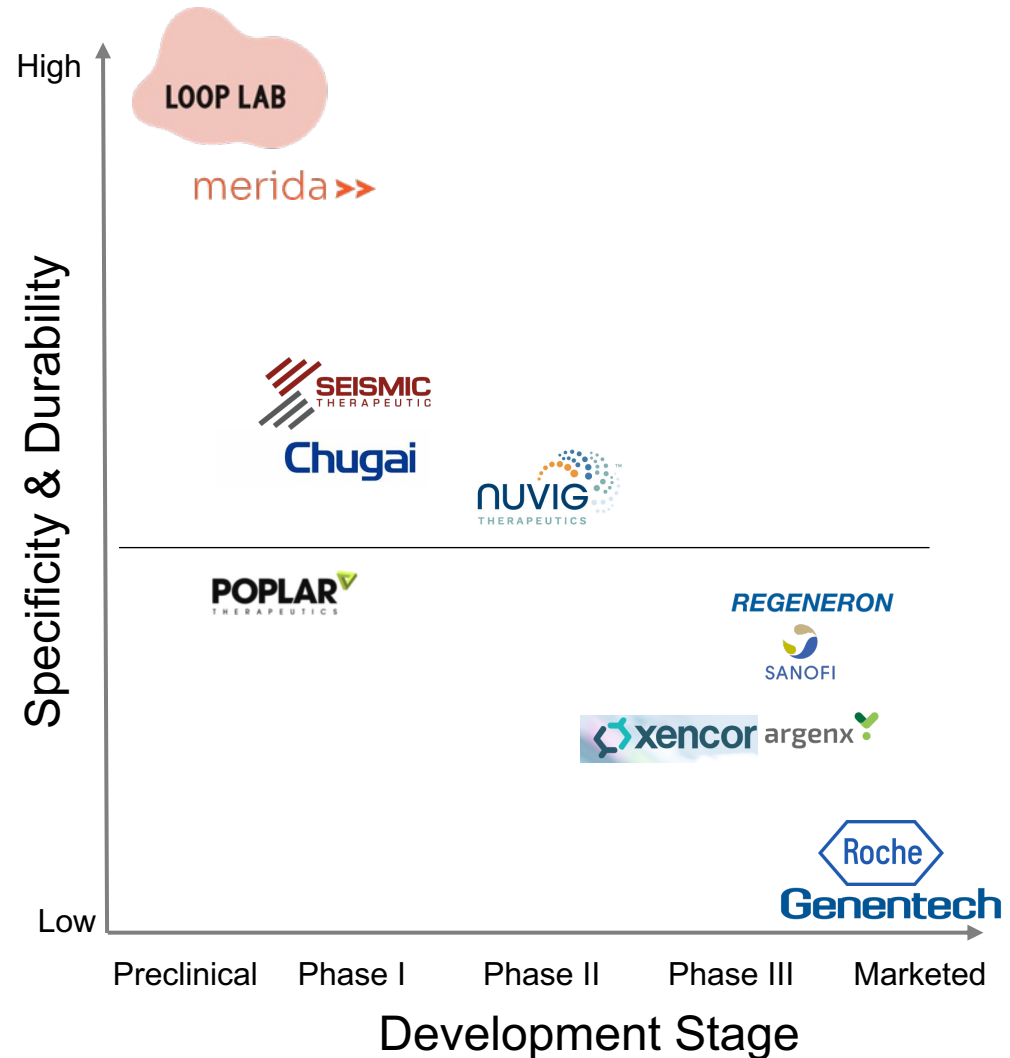
Strong signaling, long half-life

Modular Antigen Platform

Multiple antigens per Fc

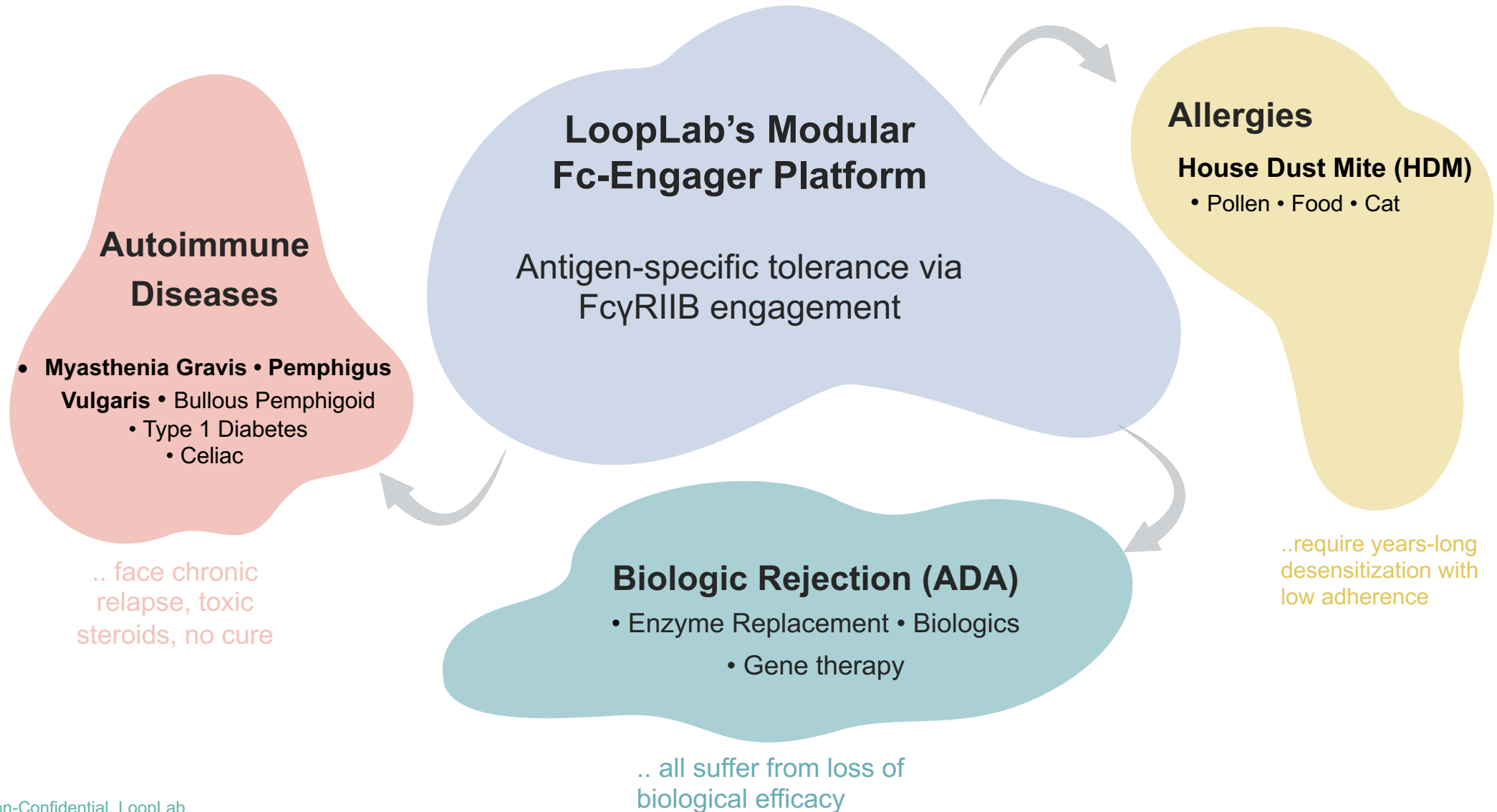
Scalable Therapeutic Platform

Expandable across indications



Fc-Engager Platform - Numerous Applications in Different Disease Areas

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Lead allergy indication: HDM-Driven Respiratory Disease for Rapid Clinical Proof-of-Concept

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RAPID CLINICAL READOUTS IN RESPIRATORY ALLERGY → FAST PLATFORM VALIDATION & EXPANSION

65–130M patients | \$2–5B market | ~40% unmet need

Current Immunotherapies (SCIT / SLIT)

- Non-standardized allergen mixtures (crude extracts)
- Long, inconvenient treatment (years)
- Low adherence & variable efficacy
- **Result: ~40% remain symptomatic**

Fc-Engager Target Product Profile

- Antigen-specific immune tolerance
- 3 s.c. injections (vs years of dosing)
- **Minimal systemic immunosuppression**
- **Disease Modifying Potential**

Validated biology + engineered precision (FcγRIIB)
= step-change in **efficacy & convenience**

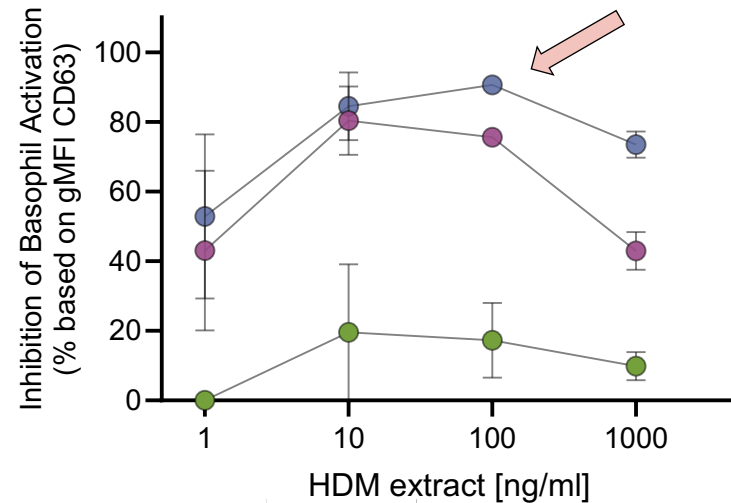
Immune Suppressors Small Molecules / Biologics

- Non-allergen specific -Non-specific immunosuppression
- Lifelong Chronic treatment
- Short term / transient protection
- No disease modification
- **Only temporary symptom relief**

HDM Fc-Engager Demonstrates Efficacy in Mice and Human Cells

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Primary Human Basophils and Patient Serum

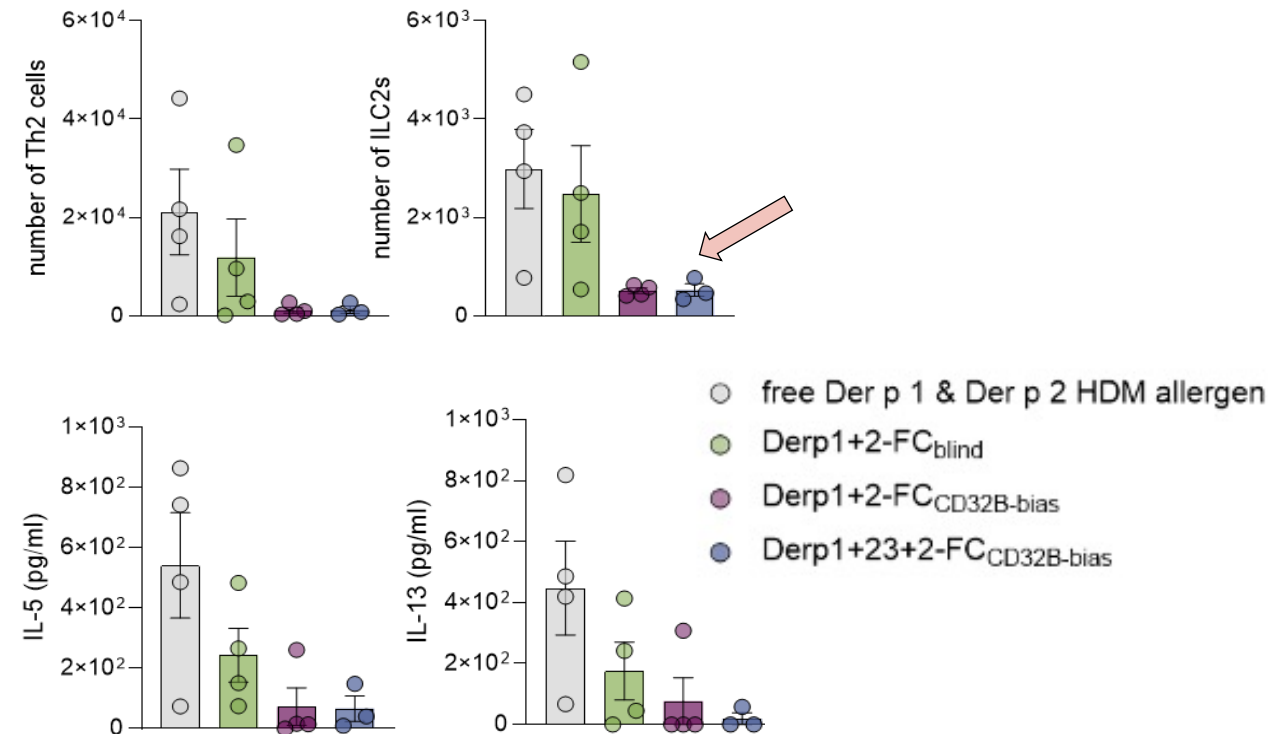


	# of allergens	CD32B-binding
	3	++
	2	++
	2	-

Effective Inhibitor

Of cell activation in advanced human settings with 3 allergens in a single Fc-Engager molecule

HDM-Allergy Study in hFcγR/hFcRn Mice

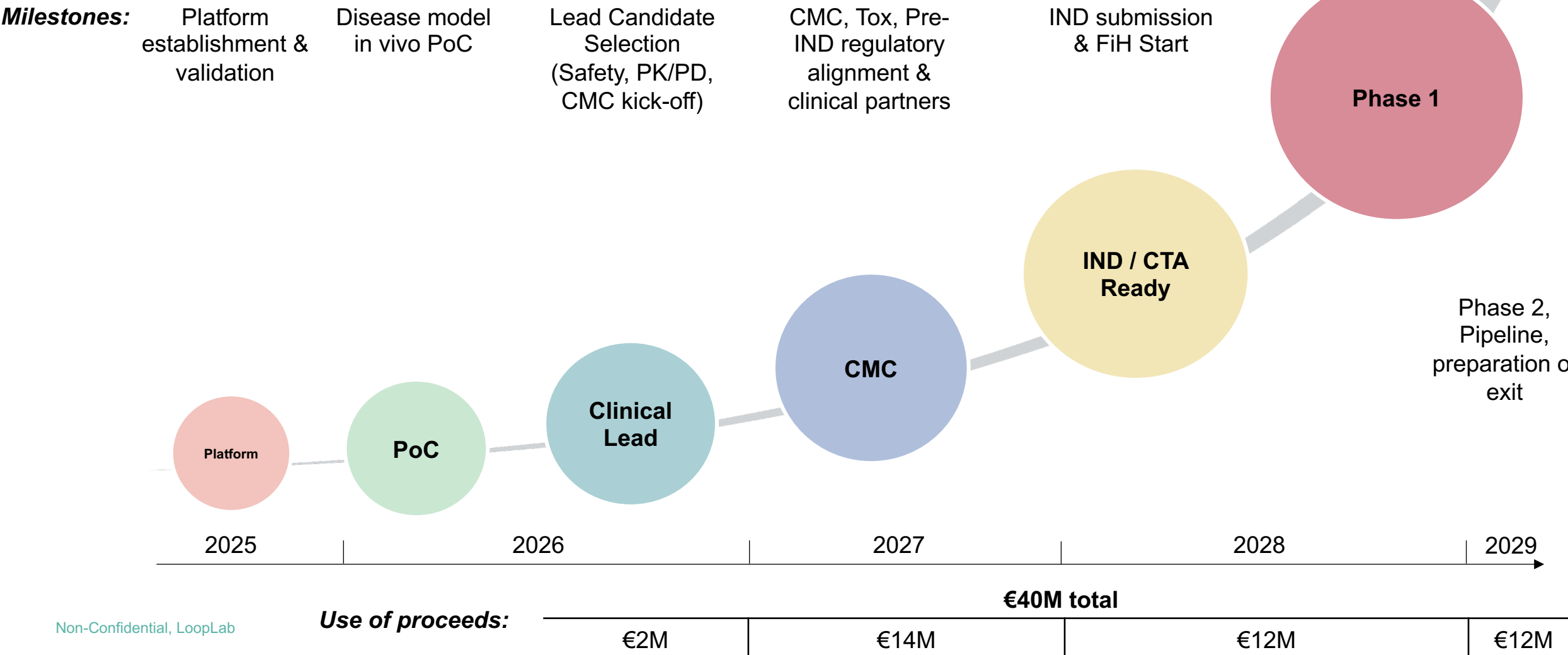


Successful In Vivo

Modulation of HDM-allergy confirmed

LoopLab’s Strategic and Focused Development Plan for HDM-Allergy Induced Disease

€39M SERIES A OPPORTUNITY



Fast Follower – Pemphigus vulgaris as Lead Autoimmune Disease Indication

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EXPLOIT DSG3 ANTIGEN BIOLOGY • STRUCTURE-GUIDED PATH TO IN VIVO POC



WP 1

Design & Production

- Dsg3-Fc-Engager constructs
- Human + murine variants
- External production (GenScript)
- QC: A280, SDS-PAGE, SEC-HPLC, endotoxin



WP 2

Antibodies + BCR Cells

- ≥ 4 anti-Dsg3 mAbs (IgG1, IgE)
- Matched BCR (IgG1, IgM)
- Ramos cells $\pm$ CD32B lentiviral engineering



WP 3

In Vitro Functional Eval

- BCR/antibody binding (FC, WB, ELISA)
- Basophil activation test (BAT)
- Ramos B-cell inhibition (Ca^{2+} flux)
- Patient serum binding (optional)



WP 4

In Vivo Model Setup

- Anti-Dsg3-antibody injection in hFc γ R/hFcRn mice
- Clinical scoring + Dsg3 titers
- Protocol amendment initiated



WP 5

In Vivo PK/Efficacy

- PK + biodistribution
- Therapeutic study, 3 dose levels
- Two independent efficacy repeats

Readouts target in vivo proof-of-concept: reduced disease severity + anti-Dsg3 antibody reduction, while total IgG are preserved

Strong Advisory & Scientific Advisory Boards

LOOP LAB



Liz Leveille
VP Boston &
European
Innovation Hubs,
MSD



Bernd Jilma
Prof., Medical
University Vienna



Oscar Izeboud
CEO, Scenic
Biotech



Falk Nimmerjahn
Prof., Univ.
Erlangen-
Nuremberg (Fc-
receptor expert)



Enno Schmid
Prof., Univ. Lübeck
(expert on
autoimmune
disease of the skin)



Bart Lambrecht
Prof., Univ. Ghent
(Fc-receptor &
allergy expert)



Philippe Gevaert
Prof., Univ.
Hospital Ghent
(Clinical ENT &
allergy expert)



Friedrich Scheifflinger
FS Pharma
Consulting GmbH;
Former Takeda &
Evotec Executive



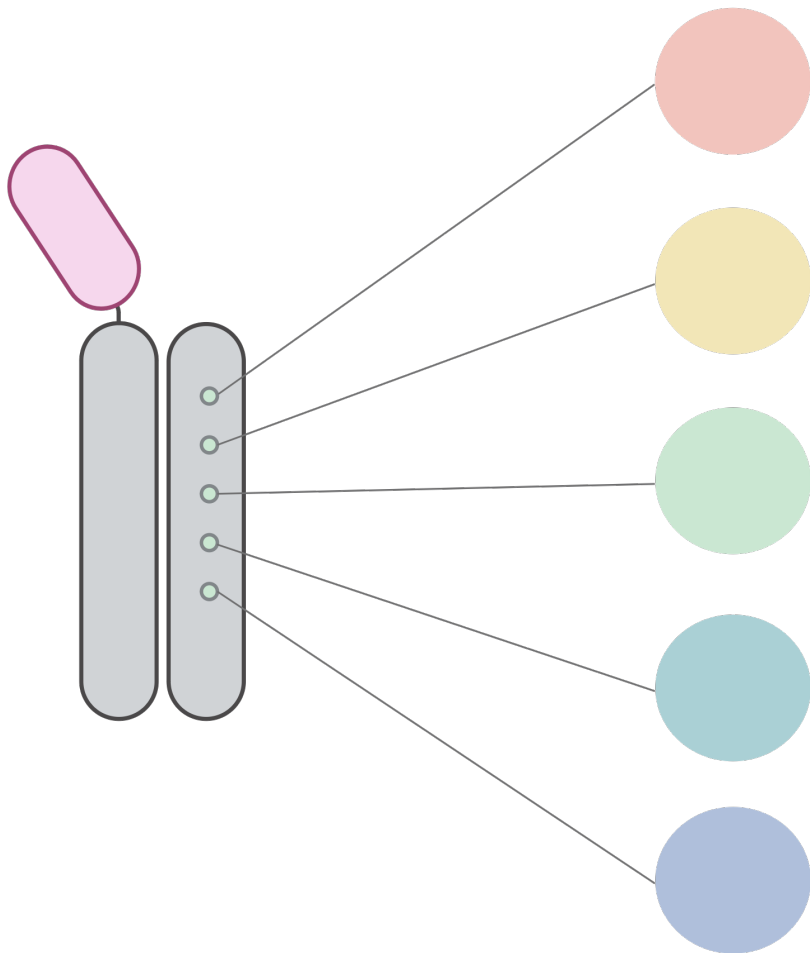
Gordana Wozniak-Knopp
Prof., BOKU Vienna
(Fc-library screens);
Co-founder F-star Tx

Backed by **€9.6M seed funding** and **€1.5M in grants**, with **global experts**.

Series A Opportunity to Support Clinical Proof-of-Concept

BUILDING DURABLE IMMUNE TOLERANCE ACROSS HIGH-VALUE INDICATIONS

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Novel Fc-Engager Platform with Broad IP Protection

Established to induce antigen-specific immune tolerance while preserving normal immune function. **WO/2025/248034 filed** (Platform Scope — Not Indication-Limited)

De-Risked by Strong Data

Early mechanistic, translational, and preclinical evidence supporting advancement of lead clinical program reduces development risk

Modular and Scalable

Platform approach enables expansion across multiple allergy, autoimmune, and antibody-mediated diseases

Experienced Leadership

Proven team and world-class Scientific Advisory Board with strong track record in drug development and successful exits

Series A Financing (€39M) to Drive Value Inflection

Series A financing allows lead program through IND submission and first-in-human study (2028), and advancement of diversified preclinical pipeline

Partner For Durable Immune Tolerance

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CONTACT

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Call to Action



Funding

€40M (Series A) investment to advance lead program through IND and into early clinical development in 2028



Co-Development Partners

Strategic collaborations to accelerate lead assets with complementary pipeline synergies and Fc-domain expertise



Translational Resources

Access to disease-specific models, patient samples, and regulatory expertise to strengthen development strategy

Leading Scientists Endorse Our Approach

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Prof. Dr. Bart Lambrecht

University of Ghent

"Efficacious, durable, and targeted tolerance induction is the holy grail in treatment of autoimmune diseases and allergies. LoopLab's Fc-Engagers are a very promising approach to succeed in getting hold of this cup."



Prof. Dr. Falk Nimmerjahn

University of Erlangen-Nuremberg

"I am convinced that LoopLab's pioneering work on Fc-Engagers has the potential to substantially improve outcomes in patients with allergic disorders or autoimmune diseases."



Dr. Peter Sondermann

CSO Tacalyx, Formerly CSO SuppreMol

"FcγRIIB is clearly the key player in modulating antibody-mediated responses but is still waiting for its full therapeutic potential to be realized. LoopLab owns the skills, technology, and tools to harness FcγRIIB biology for establishing novel and tailored therapeutic concepts."